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SOCIALIZATION INTO THE ELEMENTARY SCHOOL STUDENT ROLE: AN EXAMINATION OF STUDENT AND TEACHER INFLUENCES

By

Ariel Linda Hart Anderson

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ABSTRACT

SOCIALIZATION INTO THE ELEMENTARY SCHOOL STUDENT ROLE:
AN EXAMINATION OF STUDENT AND TEACHER INFLUENCES

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The purpose of this study was to examine how well a variety of student- and teacher-level variables predict children's socialization into the elementary school student role. Teacher variables considered included socialization priority (i.e., the specific socialization goals held for students), teacher control orientation, and teacher effectiveness in two key socialization domains: adaptation to classroom task demands and interpersonal adjustment. Student interviews yielded the primary data of interest. Interviews were designed to assess students' "content knowledge" (i.e., perceptions of rules, standards, and rationales for classroom conduct) and "process knowledge" (i.e., social-problem-solving ability). Other student variables included perceived competence and perceived control in academic and social areas, as well as standardized achievement test scores.

Briefly, it was found that teacher socialization priority (task versus interpersonal focus) relates more to children's understanding of the normative structure of the classroom environment; teacher control

orientation, on the other hand, is more influential with regard to children's social-problem-solving ability. Somewhat different student-level variables were found to contribute to children's problem-solving abilities in the task and interpersonal domains (although the ability to socially problem solve in these two domains was strongly and positively correlated). The results of this study are compared with those of related studies in the areas of student perceptions and classroom socialization, as well as with more general research on effective socialization practices. It is suggested that the "effective" teacher, with regard to classroom socialization, might behave in ways similar to those of the effective (i.e., authoritative) parent.

With great love and hope for their futures,
I dedicate this work to my children, Brynn
and Steven. They are my pride and joy--
my inspiration. I only regret the time
this effort has kept me away from them.

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CHAPTER I

THE PROBLEM

Introduction

The success of children in school involves more than simple attainment of academic goals. It involves attainment of academic goals within a group context and through prescribed behavioral channels. Lortie (1975), in his analysis of the classroom environment, stresses that:

> Students go to school, in part, to learn how to sustain work performance . . . [but] goals must be met and relationships managed in a group context. This feature is so obvious that it is often overlooked. (p. 137)

Thus, school success depends, in part, on a child's ability to meet the dual role demands placed upon him or her: The child must adapt to classroom work demands placed on him as an individual student, while simultaneously functioning as a member of the classroom group. In the present investigation, both learning to function as an individual worker (adapting to the classroom task demands) and developing interpersonal skills which facilitate group functioning are conceptualized as integral aspects of the socialization process children engage in as they strive to learn the student role.

There is ample evidence that social skills of children are related to achievement, peer acceptance, and later adjustment (Brown & Brown,

1982). Interpersonal skills are given much attention in the literature as important mediators or correlates of social adjustment. For example, children who have trouble getting along with others have reduced opportunities for social learning (Brown & Brown, 1982). Such children have a high incidence of school maladjustment (Gronlund & Anderson, 1963), dropping out of school (Ullman, 1957), and trouble with the law (Roff, Sells, & Golden, 1972).

The area of individual adaptation to classroom work demands has in the past received less attention, and has not as often been considered a part of classroom socialization. However, support does exist for its conceptual inclusion within the socialization process. Cartledge and Milburn (1978) define social skills as those social behaviors, interpersonal and task-related, that produce positive consequences in the classroom setting. Clearly, such task-related skills as attention, persistence, compliance, and following directions are influential with regard to the dispensing of positive consequences in classrooms. Furthermore, such behaviors have been shown to relate highly to academic achievement scores and teacher grades (e.g., Brown & Brown, 1982; Cobb, 1972; Hops & Cobb, 1974).

Further empirical support for the conceptualization of both adaptation to classroom task demands and interpersonal skills development as central components of school socialization is derived from the Affective Outcomes Project conducted at Michigan State University's Institute for Research on Teaching (Prawat, Solomon, Nickerson, Anderson, Diamond, McKeague, & Whitmer, 1981). Interviews

with 40 elementary school teachers indicated that both areas were of key concern to teachers as they discussed their socialization goals for students. Among socialization goals reflecting concern for how students learn to adapt to academic work demands were the following:

Being good listeners.

Getting work done on time.

Working neatly.

Taking care of materials.

Being self-motivated.

Regarding the development of interpersonal skills necessary to facilitate group functioning, teachers stressed the following goals for their students:

Being helpful to others.

Becoming more accepting of others.

Thinking of how their actions influence others.

Learning to keep hands to self.

Relating to each other.

The present study thus focuses on both aspects of classroom socialization, considering a degree of proficiency in each area as requisite to overall school success.

Need for the Study

"Socialization" refers to the learning processes that enhance an individual's ability to participate successfully within a given social system (Biddle, 1979). The classroom can be viewed as such a system. Hartup (1979) refers to the school as a social world of major

significance. As such, it "has not been well described in relation to the growth of social competence in the individual child. Given the extent to which the school is used as a socializing agency, our lack of knowledge concerning its social dynamics is shocking" (Hartup, 1979, p. 946).

We are not totally unknowing of the effects of socialization practices in schools. For example, Kounin and Gump (1961), Halperin (1976), and Rohrkemper (1981) have focused on various aspects of school socialization. However, we are not clear in our understanding of what differentiates the socially competent student from one who is not. Clearly, some students are more adept at meeting classroom task demands than others. Similarly, some children emerge as better able to interact interpersonally than others. But what contributes to these differential abilities? We are not well informed about the ways in which children learn to function as students, how they come to understand what is required for successful participation in the classroom's social structure, and how they implement such understanding in the face of difficulties encountered in day-to-day classroom life.

Through student interviews, this study focuses on what teachers consider to be differentially socialized elementary school students' cognition as it relates to social adjustment in the classroom. A review of the literature pertaining to social cognition, particularly in relation to overt behavioral adjustment, indicates that both "content" and "process" aspects of social cognition are relevant to an understanding of social behavior (see Chapter II for a full discussion

of the distinction made between "content" and "process" aspects of social thought). In this study, then, both students' "content knowledge" and "process knowledge" are examined in relation to their adjustment in both areas of classroom socialization: adaptation to classroom task demands and interpersonal adjustment.

For the present study, "content knowledge" refers to students' perceptions of rules and standards for classroom conduct, as well as their storehouse of knowledge about characteristics of well-socialized students (those who are good workers and those who get along well with others). As conceptualized in this investigation, content knowledge represents the extent to which a student is able to "read" the parameters of the social world of the classroom. It involves the ability to pick up on a variety of explicit teacher statements and behaviors which are informative in this regard (as when teachers list and/or post a set of classroom rules on the first day of school); it also involves sensitivity to a host of more subtle teacher verbal and nonverbal behaviors through which teachers communicate expectations for appropriate classroom conduct (for example, when dispensing special privileges such as passing out supplies, the teacher always calls on students who get their work done on time or who are very helpful to other children).

"Process knowledge" is conceived of as the ability to display the kinds of problem-solving skills which facilitate the handling of real-life problem situations. As with life outside classrooms, classroom life is fraught with difficult situations requiring resolution. (For

example: Anne wants the book Matt is reading, but he won't give it to her. Pete is stuck on a math problem and doesn't know what to do.) Process knowledge represents the student's ability to put into action skills and/or strategies which enable him or her to successfully achieve conflict resolution in either socialization domain.

A somewhat unique aspect of the present investigation is the dual focus maintained throughout on both the "interpersonal" and "task demands" aspects of classroom socialization as opposed to a unitary focus on one or the other socialization domain. Prior research has typically dealt with social cognition relating either to interpersonal adjustment or adaptation to work demands. As successful socialization into the student role is considered to involve a certain degree of adeptness in both of these areas, attention to both content and process aspects of social cognition relating to both socialization domains is maintained. With this broader focus, we hope we can more adequately address the question of how elementary school children get socialized into the student role.

In the present study, the influence of teachers as socializing agents is explored through the inclusion of more and less socially competent students from classrooms where teachers differentially place primary emphasis on one of the two aspects of classroom socialization outlined above. In addition, a variety of individual student variables are examined for their relative influences on classroom socialization.

In short, a variety of teacher and student measures expected to discriminate between what teachers regard as differentially socialized

students are examined for their predictive capacity, in an attempt to better elucidate relationships between key variables involved in the classroom socialization process. It is hoped that this investigation will help to broaden the current knowledge base regarding a process about which little is known: socialization into the student role.

Purpose of the Study

The purpose of this investigation is to explore the predictive capacity of a variety of variables with regard to successful socialization into the elementary school student role. The primary question of interest is "What distinguishes the socially competent student from one who is lacking in social competence?" Also of interest is the answer to the question "What accounts for the differential socialization of children into the student role? What part do teachers play?"

A student's level of social competence can be determined in a variety of ways. In the present study, three independent ways of assigning social-competency status were examined:

1. Teacher ratings of competence.

2. Content knowledge relating to classroom socialization norms and standards for behavioral conduct.

3. Process knowledge, or children's social-problem-solving ability.

This investigation sought to elucidate relationships between a variety of predictor (both teacher and student) variables and each of the three criteria for assigning competency status outlined above. Of

particular interest was the determination of teacher and student influences on both content and process knowledge. Whether or not these measures of social-competency status actually do relate to teacher ratings of social competence, a commitment was made to the belief that the more one knows about what is expected (content knowledge) and the more one is able to act in accordance with those expectations (process knowledge), the better off one is in terms of overall adjustment.

It was thought that teachers, largely through direct instruction and corrective feedback, should be in a position to directly influence the acquisition of content knowledge. Thus, teacher variables such as teacher socialization priority or teacher effectiveness were expected to directly influence students' level of content knowledge. Process knowledge, on the other hand, was expected to be more susceptible to individual student differences than to teacher practices.

A series of hypotheses were advanced to explore the relationships outlined above. In addition to statistical analyses, more qualitative analyses were expected to provide useful explanatory information. Throughout, particular attention was given to ferreting out relationships between variables expected to influence children's social-problem-solving ability (process knowledge) as it is this ability which was expected to be of key importance in determining the social-competency status of students.

In sum, the purpose of this investigation was to provide information about relationships between variables involved in the processes of socialization into the elementary school student role.

Overview of the Study

Chapter I has presented the problem, provided a rationale for, and stated the purpose of the present investigation. In Chapter II prior relevant research is reviewed. Chapter III describes the methods involved in the study, including sample characteristics, instrumentation, data-collection procedures, hypotheses, and statistical and qualitative analysis procedures. Chapter IV presents the data and the results of analyses. In Chapter V the results are discussed in relation to past research as well as future implications. The limitations of the present study are addressed. The findings are summarized, and suggestions are made regarding possible directions for future research.

CHAPTER II

REVIEW OF THE LITERATURE

The following literature review selectively presents research relevant to an understanding of the two socialization domains considered in this thesis: interpersonal adjustment and adaptation to classroom task demands. Studies conducted in both the cognitive-developmental and the social learning/behavioral traditions are included, as well as works which reflect an attempt to bridge and blend those traditions.

This study focuses on students' "content" and "process" knowledge in relation to their overall socialization into the student role. In this regard, a point needs to be made: The development of interview items to assess content knowledge was not nearly as problematic for the researcher as was the determination of a way in which to reasonably assess process knowledge, or the ability to apply content knowledge in everyday classroom situations. Thus, of particular concern to the researcher when conducting this literature review was a need to formulate ideas about how to assess students' process knowledge.

This review of the literature is divided into four sections. The intent is to provide a selective and representative review, rather than a comprehensive one.

Section one briefly examines the construct of social intelligence, setting the stage for the focus maintained in this study on both "content" and "process" knowledge as key determinants of social adjustment. It includes a discussion of social intelligence as something which is at least partially distinct from other cognitive abilities, thereby deserving of investigation in its own right.

Section two reviews literature which is relevant to an understanding of interpersonal skills development, or the "interpersonal" socialization domain, while the third section focuses on work relating to the classroom socialization domain termed adaptation to classroom task demands.

Dweck (1981) has pointed out that although approaches to the study of social cognition are diverse, the field can be characterized in terms of two primary approaches, those being the cognitive-developmental tradition and the social learning/behavioral tradition. The former places primary emphasis on social cognitions themselves, investigating first how levels of understanding change with age, and only secondarily asking how social cognitions relate to social context and behavior. In contrast, investigations conducted in the social learning/behavioral tradition begin with the environment, and work to determine observable antecedents and consequences of social cognition. As this is a study of social cognition, particularly of students' social cognitions as they relate to classroom adjustment, the author has made use of Dweck's point regarding the organization of the field of research on social cognition to provide an organizational frame for

this literature review. Thus, the studies reviewed in sections two and three have been classified as reflecting either the cognitive-developmental or social learning/behavioral research tradition. The author is aware that not all of the works reviewed are strictly restricted to one or the other of these traditions; however, for the purpose of organizational clarity the distinctions have been made. Furthermore, an attempt has been made to point out those studies which particularly represent an effort to blend or combine the best of what each approach has to offer.

The fourth, and final, section of this review points out the need for a middle-ground approach to the study of social cognition, and provides a rationale for the way in which the present study proceeded.

Social Intelligence

What Is "Social Intelligence"?

People differ in their views as to what constitutes social intelligence (commonly termed social cognition). Flavell (1977) defines social cognition as "cognition of human objects and their doings. It includes perception, thinking, and knowledge regarding the self, other people, social relations, social organizations and institutions--in general, our human, social world" (p. 49). Spivack, Platt, and Shure (1976) differ somewhat in their conception of social intelligence:

> Whereas social intelligence has been viewed in terms of knowing what to do in social situations, or as the ability to understand the thoughts, feelings and intentions of others, it might be well to shift focus to the individual's capacity to generate certain classes of thought when confronted with interpersonal problems.

> Social intelligence might be more profitably defined in terms of the processes called forth in social contexts, rather than the products (that is, content knowledge) that may emerge as a result of increased maturity and social awareness. (p. 158)

For the purposes of this study, social intelligence is assumed to include elements of both these viewpoints. Not only is content knowledge regarding human objects and their doings deemed a necessary antecedent condition for social adjustment; equally important are the mental processes which permit one flexibility for dealing with difficulty in social relations as they arise. For example, in the social world of the classroom, children must develop not only an understanding of the parameters of their environment (i.e., content knowledge of rules and standards for appropriate classroom conduct), but they must also become skillful in dealing with the numerous kinds of difficulties which arise, and which are inherently social in nature.

Both the "interpersonal" and the "task demands" domains of classroom life present frequent problem situations requiring conflict resolution. A child who cannot get along with classmates is evidencing difficulties in the interpersonal domain, while one who is unable to finish reasonable work assignments on time flounders in the realm of adaptation to classroom task demands. While the "interpersonal" example given here would seldom, if ever, be questioned as being "social" in nature, the "task demands" example might be. Adaptation to classroom work demands has not always been considered a teacher goal in the classroom socialization process. However, each of the problem situations described above can be considered "social" in nature in that the norms and standards for behavioral conduct within the society of

the classroom dictate the acceptable ways for resolving such conflicts. Also, skills required to resolve task-related dilemmas are social in nature because their presence can be linked to positive consequences in the classroom while their absence may lead to negative consequences (Cartledge & Milburn, 1978).

Children in classrooms need the social-cognitive, problem-solving skills necessary to solve social dilemmas if they are to demonstrate social competence in school. Knowledge of the classroom rules which relate to ways in which such problem situations are handled assists children in distinguishing between acceptable and unacceptable solutions to social problems, but this content knowledge is only useful if it can be activated, resulting in appropriate behavioral solutions. Thus it would seem that content and process knowledge go hand in hand toward determining the social adjustment of children in school.

In this study, then, both content and process elements of social intelligence in each of the two major classroom socialization domains are examined. Content knowledge is determined through children's perceptions of rules and standards for classroom conduct, while attention to social cognitive processes is given through the exploration of children's social cognitive problem-solving skills, or means-ends thinking.

The Relationship Between Social Cognition and Other Cognitive Abilities

That there are parallels in the development of social and nonsocial cognition is reasonable to assume. In fact, parallels do

exist, some of which are reviewed by Flavell (1977, pp. 122-125). However, there are differences between so-called "social intelligence" and cognitive intelligence. Turnure (1975) found no relationship between Feffer's role-taking task and scores and measures of concrete and formal operational thought in children ages 7 to 9. Spivack et al. (1976), in their investigations of interpersonal cognitive problem-solving (ICPS) skills, report little if any relationship between interpersonal and "impersonal" problem-solving abilities (such as those involved in typical puzzle or anagram problem-solving tasks). For example, they assessed children's interpersonal alternative thinking (the ability to conceptualize alternative solutions to typical age-relevant interpersonal problems) as well as the ability to generate alternative solutions to impersonal problems (name as many uses as can be thought of for a chair and water). They found that a significant portion of a child's interpersonal alternative thinking is independent of a general ability to conceptualize alternatives, concluding that "the ability to conceptualize alternatives impersonal and interpersonal in nature represents distinct and separate dimensions of cognitive thought" (p. 48). Furthermore, they found that several ICPS skills (alternative-thinking, consequential thinking, and sensitivity to interpersonal problems) are all highly related to each other, and all are independent of impersonal alternative thinking.

Dweck (1981) suggests that social cognition and social skills may differ from nonsocial skills and cognition "in primary mode of transmission, in the kind and amount of practice involved, in the

explicitness with which rules are articulated, and how context-specific such rules tend to be" (p. 332). Shantz (1975), in her review of research regarding the relationship of social to cognitive intelligence, concludes: "To date, there seem to be no data to support the view that children's social cognitive skills are 'nothing more' than a reflection of their brightness as measured by conventional intelligence tests" (p. 302). And Ford (1982), in an investigation of the relationship between social cognition and effective social behavior, achieved results which suggest that "social competence represents a domain of human functioning that is at least partly distinguishable from a cognitive or general competence domain" (p. 323).

The present study is motivated by the belief that social cognitive abilities are, in part, separate from more general cognitive intellectual abilities, and as such merit investigation in their own right. It is further assumed, however, that a certain degree of social adeptness or competence is required for overall school success. This is true because of the inherently social nature of classroom experience.

Why Study Social Intelligence?

Damon (1979) in an essay entitled "Why study social-cognitive development?" discusses the intricacies involved in untangling the social from the nonsocial in terms of cognitive abilities, stressing the social nature of all cognition. Everything learned involves the interaction of subject and object, and can hence be considered social in nature. However, he concludes that while "it may be easy to neglect

the social influence that guides a lonely child seeking the quantitative essence of number, . . . it is difficult indeed to ignore the social origins of a child's struggle with fairness or friendship" (p. 210).

Dweck (1981) has said, "the centrality of the social domain in children's lives justifies its study on purely pragmatic grounds" (p. 332). In classrooms, social intelligence would seem to play a particularly important role, given the very social nature of the environment within which children must function. Learning takes place not in isolation, but in groups. The classroom is a social system to which children must adapt. They must learn to function in socially sanctioned ways if they are to adequately adjust to environmental demands. Social skills relating to interpersonal relations and classroom task demands are required to achieve social competence. These social skills are not just necessary for social adjustment; Cartledge and Milburn (1978) suggest that the development of certain prerequisite social skills is crucial to the academic instructional experience. They review numerous studies linking social skills, both interpersonal and task-related, to academic achievement. It appears that such skills are intimately related to academic success. It is thus necessary to understand children's social intelligence, in terms of interpersonal and task-related skills, if one is to gain an adequate understanding of overall school success.

Interpersonal Adjustment

In this section, literature pertinent to an understanding of interpersonal adjustment in the classroom is discussed. Research typical of the cognitive-developmental school of thought is followed by the presentation of relevant studies reflecting the social learning/behavioral research tradition.

The Cognitive-Developmental Approach: The Relationship Between Social Understanding and Social Behavior

Within the cognitive-developmental approach to the study of social cognition, there is heavy emphasis placed on the construct of role-taking or perspective-taking.[1] This emphasis is clearly reflected in major reviews on social cognition by Shantz (1975) and Kurdek (1978), and was stimulated by the work of Flavell, Botkin, Fry, Wright, and Jarvis (1968). Role taking has been defined by Shantz (1975) as "the activity of and/or ability to take the position of another person and thereby infer his perspective" (p. 264). The consideration of role-taking ability as critically important in the development of social understanding stems from the early work of Piaget (1965). Its implications for interpersonal adjustment were foreshadowed by Hartup (1970), who said, "Role-taking would appear to be one prerequisite for the emergence of many social behaviors. . . . It is inherent, for example, in cooperation and altruistic interaction" (p. 368).

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[1]The terms "role-taking" and "perspective-taking" are used interchangeably throughout this review.

In fact, until recently, the majority of research on role-taking failed to examine the relationship between social understanding and social behavior, focusing instead on mapping the course of development from the cognitively immature to the cognitively mature individual. The past 10 years have seen an increase in investigations of the social understanding-social behavior relationship, but the results remain unclear. Studies which raise serious questions regarding a direct link between social understanding (operationally defined as role-taking ability) and social adjustment include those by Barrett and Yarrow (1977), Iannotti (1978, 1981), and Zahn-Waxler, Radke-Yarrow, and Brady-Smith (1977). The results of other studies have been more positive in terms of linking social understanding with social adjustment (e.g., Hudson, Forman, & Brion-Meisels, 1982). Reviews which focus extensively on this issue are found in Shantz (1975) and Kurdek (1978). It appears that what Shantz expressed in 1975 still holds true today: "In summary, the hypothesis of a substantial relationship between role-taking ability and social behavior has not been strongly supported to date, but neither, certainly, has it been refuted" (p. 308).

Why does the relationship between role-taking ability and prosocial behavior appear so unclear? Both methodological and conceptual issues contribute to this problem. Kurdek (1977, 1978) suggests that perspective-taking is not a unitary ability, and that both difficulties in determining the nature of the development of perspective-taking ability, and inconsistencies in the relationship between such ability

and prosocial behavior, are due, in part, to a tendency toward a too-global viewpoint. The point that role-taking ability is multidimensional has been made by others as well (e.g., Gove & Keating, 1979; Shantz, 1975; Urberg & Docherty, 1976; Zahn-Waxler et al., 1977). These people suggest that a battery of instruments, rather than a single measure, should be used to determine various dimensions of role-taking ability.

Some of the confusion surrounding the relationship between role-taking ability and prosocial behavior may be due to consideration of the former as a direct influence, or "main effect," on the latter. (See, for example, Barrett & Yarrow, 1977; Bridgeman, 1981.) In fact, it is quite likely that things are not that simple, and that role-taking ability alone is not enough to explain prosocial behavior. Dweck (1981), in discussing the involvement of social-cognitive processes in children's friendships, stresses that individual differences in goals, values, and expectations, as well as differences in cognition about social failures, complicate the relationship between developmental level or social-skill level and actual prosocial behavior.

Spivack et al. (1976) review both correlational and training studies of children's social cognitive processes and report that for both preschoolers and latency-aged children role-taking ability does not appear as directly linked to behavioral adjustment as do certain interpersonal cognitive problem-solving (ICPS) skills. The early investigations of ICPS skills centered on preschool children, and are fully reported elsewhere (Spivack & Shure, 1974; Spivack et al., 1976).

Specific ICPS skills considered were alternative-solution thinking, consequential thinking, causal thinking, and sensitivity to interpersonal problems (for operational definitions of ICPS skills, see Spivack & Shure, 1974, or Spivack et al., 1976). Of these, alternative-solution thinking (the ability to generate in one's own mind different solutions that could potentially be used to solve a problem) was most directly linked to overt behavioral adjustment. Consequential thinking (the ability to generate in one's own mind what might happen as a direct result of carrying out an interpersonal act) was next most important for determining the social adjustment of preschool-aged children.

Investigations of latency-aged children (9 to 15 years) yielded another ICPS skill termed means-ends thinking as the most powerful predictor of social adjustment (Spivack et al., 1976). Means-ends thinking is defined as the ability to construct a story plot that reflects planning, awareness of potential obstacles, and recognition of time necessary to reach a stated goal (Shure & Spivack, 1972). This ICPS skill is <u>directly</u> linked to overt social adjustment, whereas role-taking ability is not (Spivack et al., 1976). Particularly with regard to means-ends thinking, Spivack et al. (1976) suggest that role playing may be a <u>prerequisite</u> skill to effective social problem solving:

> Good means-ends thought is . . . characterized by the sophisticated use and appreciation of people. This fact probably explains the intricate relationship found to exist between multiple perspective taking and means-ends thinking. The well planned resolution of an interpersonal problem most often involves other people, with anticipation of how they might react, and if so, what might be done to anticipate or take advantage of the other person's needs or point of view. (p. 162)

Thus, role-taking ability may enhance means-ends thinking by enriching the number and kinds of consequences considered. Integrating multiple perspectives should make for more subtle and sophisticated means-ends planning.

To summarize, the cognitive-developmental literature which relates to interpersonal adjustment centers on the issue of role-taking ability and its relationship to overt behavioral adjustment. The results of investigations into this relationship are at best equivocal. Methodological and conceptual issues no doubt account for some of the confusion generated by this body of literature. In addition, it appears that the almost unitary focus within the cognitive-developmental tradition upon role-taking as the central predictor of prosocial behavior is too narrow. Other factors are warranted consideration in order to more fully explain the process of learning to adjust, interpersonally, to one's social environment. The social learning/behavioral approach to the study of interpersonal adjustment informs us further with regard to the behavioral correlates of interpersonal adjustment, and ways in which social skills may be advanced.

The Social Learning/Behavioral Approach: Social Skills Training and Children's Social Status

Within this tradition, much of the research regarding interpersonal adjustment centers on the issue of children's friendships. Typical of the questions advanced are the following: What do children do, and is it appropriate to the setting in which they find themselves?

Are they successful in meeting the demands of their environments? (Dweck, 1981).

Children's friendship status is influenced by a variety of factors including physical appearance, gender, race, opportunities for participation, and mobility of the peer group (Asher & Renshaw, 1981). Both peer-nomination and rating-scale techniques have been used to determine children's friendship status. The former requires children to nominate peers with whom they most like to play, work, etc. Thus, within a given social group, such as the classroom, a child's score consists of the total number of nominations received. The rating-scale technique requires each child of a given group to rate every other child on various criteria, such as how much they like to play or work with each peer. In this case, an individual child's score consists of the average rating received by peers. These two types of sociometric measures have been shown to measure different dimensions of sociometric status (Gresham, 1981).

Observational methods have also been used to examine social behavior as related to friendship patterns, and have been shown to measure yet another dimension of social adjustment (Gresham, 1981). This review does not examine in depth the methodologies used to assess sociometric status, but refers the reader to Gresham (1981), Asher and Renshaw (1981), or Hallinan (1981) for a more complete discussion.

A key hypothesis which has generated considerable research in the area of children's friendships is the "social-skills-deficit hypothesis" (Asher & Renshaw, 1981). In general, less popular children

(generally determined by sociometric techniques) are thought to be less able than their more popular counterparts to behave in ways that are likely to promote positive peer relationships. Asher and Renshaw (1981) provide an excellent review of descriptive research and training studies which lend support to the social-skills-deficit hypothesis. Their efforts are not repeated here; rather this review summarizes the major contributions of the behavioral social-skills-training literature as presented by Asher and Renshaw.

Both role-playing and story-telling approaches have been used to examine the strategies used by high- and low-sociometric-status children in response to hypothetical situations requiring conflict management, initiation, and maintenance of friendships. This hypothetical-situation approach has been used primarily to determine whether, in the absence of their peer group, unpopular children are able to demonstrate social skillfulness. If they could, the inhibitory effects of marginal group status would be a viable alternative explanation to the social-skills-deficit hypothesis. It does appear, however, that less popular children respond differently to hypothetical situations. Ladd and Oden (1979), for example, found significant negative correlations between children's sociometric status and their uniqueness of ideas regarding help-giving. While Asher and Renshaw (1981) found many similar ideas among high- and low-sociometric-status children in response to a variety of hypothetical situations, differences were found which suggest that "the unpopular children's responses

indicate a lack of sophistication in handling the everyday social tasks of childhood" (p. 279).

With regard to training children in social skills for effective peer interactions, early attempts (1930s-1940s) employed direct verbal instructional techniques. An emphasis on behavioral contingencies dominated the training programs of the 1950s and 1960s, while the 1970s saw a return to verbal methodologies. Most of these training programs, while generally effective in terms of enhancing behavioral adjustment, did not examine concurrent changes in sociometric status. In the past decade a variety of coaching studies have been conducted geared specifically toward improving behavioral correlates of high sociometric status. The results of these studies indicate that coaching children in social skills can positively affect sociometric status and thus support the social-skills-deficit hypothesis. Asher and Renshaw (1981) suggest that:

> coaching may have been effective because it influenced a number of dimensions of social skillfulness. These include the child's knowledge of general interaction principles or concepts, the child's knowledge of specific behavioral sequences that operationalize the concepts, the child's goal-construction process, and the child's ability to monitor his or her impact on others. (p. 289)

It is likely that developmental considerations are important when designing behavioral social-skills intervention programs (Asher & Renshaw, 1981). This is so because of the variation in the expectations of children at different ages regarding friends and friendship. The attention given by Asher and Renshaw to developmental differences, evident in their suggestions regarding the effectiveness of coaching studies, indicates the extent to which progress has been made in

bridging the gap between developmental and behavioral approaches to understanding social competence. As Dweck (1981) suggests, it appears that:

> the study of social cognition has provided a bridge between research traditions that were formerly rather distinct, to the great advantage of each. For example, those in the cognitive-developmental tradition are now more likely to ask how their measures of reasoning relate to indexes of social skills or popularity; those in the social-learning tradition are now more likely to search for the cognitive underpinnings of the behaviors they study and train. Moreover, systematic individual and group differences may be explored within each framework and may provide further grounds for the integration of the two. The future of this field clearly promises many intriguing and important findings. (p. 332)

In sum, an examination of the social learning/behavioral approach to the study of children's friendships yields that the social-skills-deficit hypothesis is a viable explanation for difficulties encountered in interpersonal adjustment. Attempts to coach children in social skills which correlate with social competence as determined by sociometric techniques have proved successful. Recent work in this area has moved toward integrating developmental theory with behavioral training practices. This is an important advance toward furthering our understanding of the processes involved in interpersonal adjustment. Given the importance of interpersonally related social skills with regard to school adjustment (Asher & Renshaw, 1981; Gresham, 1981), it appears that the literature on social-skills training is informative with regard to what contributes to successful schooling experiences for children.

Adaptation to Task Demands

In this section, studies relating to an understanding of the skills and processes involved in learning to be a "good worker" are discussed. Relevant research from the social learning/behavioral tradition is presented first, followed by discussion of four programs of research representing the cognitive-developmental approach.

The Social Learning/Behavioral Approach

Within this tradition there are two primary lines of inquiry which are relevant to the present investigation. The first reflects the traditional behavioral modification approach based on principles of social learning theory which promote rewarding desirable behavior and extinguishing (by ignoring or punishing) undesirable behaviors. More recently, work in this area has turned to the investigation of cognitive processes such as self-monitoring and self-evaluation, and their effects upon the regulation of behaviors.

Behavior modification techniques: External student control. Work within the first line of inquiry which is relevant to this investigation is typified by the research on so-called academic survival skills, and their relationship to academic achievement (see Cartledge & Milburn, 1978; Cobb, 1972; Hops & Cobb, 1974). These academic survival skills are conceptualized as "a group of overt classroom behaviors that are essential prerequisites for acquiring knowledge in an academic situation. They are not academic behaviors per se, but provide the conditions conducive to academic responding" (Cobb, 1972, p. 170). These survival skills include attending, following instructions,

looking at appropriate academic materials (Cobb, 1972), volunteering to participate in classroom discussions (Hops & Cobb, 1974), behavioral compliance with teacher demands, evidencing self-control, persistence to task, and working independently (Cartledge & Milburn, 1978). A student's proficiency in terms of academic survival skills affects not only his or her relationship with the classroom teacher (see Good & Brophy, 1972; Klein, 1971; Noble & Nolan, 1976 for discussion of the reciprocal nature of student-teacher interaction), but also the overall level of school success attained (Cartledge & Milburn, 1978).

The primary methodologies used to effect behavioral change in students have been programs of reinforcement and/or social modeling procedures (Cartledge & Milburn, 1978). A more complete list of methods used in this regard by teachers and researchers is found in Brophy (1982, p. 20). Survival-skills training programs have relied heavily upon teacher monitoring, token reinforcement systems, and group reinforcers (Cobb, 1972). Hops and Cobb (1974), in an investigation of the effects of survival-skills training and direct instruction on first-grade reading achievement, had teachers employ the following child-training procedures to enhance academic survival skills: pairing group-nonsocial reinforcement with individual-and-group social reinforcement, vicarious reinforcement, shaping, close monitoring, and the withdrawal of nonsocial reinforcement by gradually increasing the criterion for such reinforcement (p. 549).

The results of investigations into academic survival skills and their relationship to achievement, as well as their relationship to the

student-teacher relationship, are fully reviewed in Cartledge and Milburn (1978). The following summary statements, based on this review, indicate what this body of literature contributes to an understanding of that part of the school socialization process termed adaptation to classroom task demands.

Interactions between student and teacher are not unidirectional, but are reciprocal in nature. Thus students' task-related behaviors (such as those termed academic survival skills) significantly affect both the quantity and quality of student-teacher interactions. The better-skilled student has a greater chance of gaining positive teacher attention, which may influence the student's overall level of school success.

Attending behaviors are deemed among the most important in terms of social skills required for school success. Attending is considered a social skill because it "involves the social element of orienting toward the teacher or to stimuli defined by the teacher at times and under conditions specified by the teacher" (Cartledge & Milburn, 1978, p. 138). Clear relationships have emerged between attention and measures of achievement.

Other important academic survival skills include following directions, volunteering, and question asking (during class discussion). These behaviors are positively related to achievement. Behaviors which are negatively related to achievement include "self-stimulation" and "looking around" (not paying attention).

It is important to note that survival skills which are most predictive of achievement may vary by subject (i.e., reading versus math), and therefore survival skills training must be systematic across content domains; one should not expect generalization to occur following training in only one content area (see in particular Cobb, 1972). Modeling and reinforcement are well suited to effecting task-related social skills such as those included in survival skills training programs.

It is apparent from this brief look at the literature on survival skills training that certain task-related behaviors are crucial ingredients involved in the overall determination of children's success in school. These task-related behaviors are considered social in nature because they constitute, to a great extent, the role definition to which students must conform if they are to successfully merge with the inherently social world of the classroom, and because they do, in part, determine the nature of consequences (positive and negative) encountered through interactions with the primary socializing agent in school, the classroom teacher.

An important ingredient which is missing from this body of literature is that of the student's role in the socialization process. This view of the child as an active agent in his/her encounters with the social world was promoted by Piaget and has borne impact on the thinking of behavioral learning theorists, most notably Albert Bandura (1977). Recent years have seen an increase in the consideration of

student involvement, reflected in the growing body of literature regarding "cognitive behavioral modification" (Meichenbaum, 1977).

Cognitive Behavior Modification: Students Learning to Control Themselves. Most of the literature on cognitive behavior modification, or teaching self-control skills, considers on-task (or study) behavior as the dependent variable of interest. Achievement behavior is, of course, also of interest. The goal here is to transfer responsibility for control of classroom behavior from the teacher to the student him/herself. This is advantageous both in terms of promoting generalization of adaptive behaviors across time and situations, and as a welcome alternative to the often cumbersome and unrealistic demands placed on the teacher as "dispenser of reinforcement" when more traditional reinforcement approaches are employed (Brophy, 1982).

Glynn, Thomas, and Shee (1973) provide a conceptual base for the analysis of self-control which includes four components: self-assessment, self-recording, self-determination of reinforcement, and self-administration of reinforcement. They point out that while these components had been investigated one or more at a time, all four components had not been considered within the same investigation prior to their study. Also, little classroom-based research was available. Hence, they investigated the behavior-maintenance capacity of all four components of self-control with regard to the on-task behavior (during reading instruction) of second-grade students. Ten experimental phases were involved, including three baseline observations, three class

contingency phases, one reading group contingency phase, and three behavioral self-control phases. The specific procedures used are not reviewed here (see Glynn et al., 1973). In general, Glynn and colleagues found that children were accurate in their use of treatment procedures and, if anything, tended to take too little reinforcement, rather than too much. Using self-control procedures, in the absence of teacher-control measures, served to maintain the already high levels of on-task behavior both immediately following treatment and after a 7-week follow-up period. This study demonstrates the feasibility of using self-control techniques to manage classroom task-related behavior.

Sagotsky, Patterson, and Lepper (1978) examined the effects of self-monitoring and goal-setting training on the study behavior and academic achievement of fifth- and sixth-grade students. Training occurred during math seatwork and included four different conditions: goal-setting, self-monitoring, goal-setting and self-monitoring, and control. Observational methods were used to measure study behavior, while rate of progression through the individualized math program served as a measure of academic achievement. The results indicate that training in self-monitoring enhanced both appropriate study behaviors and academic achievement, while goal-setting training enhanced neither one. In addition, goal-setting procedures did not increase the effectiveness of self-monitoring procedures alone. Other studies have likewise demonstrated the effectiveness of self-monitoring procedures

with regard to improved study behavior and academic achievement (e.g., McLaughlin, 1976; O'Leary & Dubey, 1979; Rosenbaum & Drabman, 1979).

A variety of methods has been used to teach self-control skills, including modeling combined with verbalized self-instruction and role-playing techniques. Brophy (1982) discusses in some depth the range of techniques used, as well as recent applications such as the "turtle" technique employed by Robin, Schneider, and Dolnick (1976) and the "Think Aloud" program of Camp and Bash (1981). Further discussion of the techniques employed in cognitive behavioral modification programs is found in Meichenbaum (1977).

For a comprehensive review of the literature on self-control, the reader is referred to Pressley (1979). In general, the literature indicates that actively involving the student in such activities as self-monitoring and self-recording of behavioral performance, self-determination of reinforcement, and self-administration of reinforcement is advantageous in terms of enhancing adaptation to classroom task demands, as well as promoting academic achievement. Self-control skills can be considered highly instrumental in determining children's overall school success. They have advantages over more traditional behavioral modification techniques as regulators of behavior in that they promote generalization of appropriate task-related behaviors across time and situations, and the use of self-control measures leaves the teacher with more time to devote to instructional, as compared with managerial, activities. It is likely, however, that developmental differences are also an important consideration when looking at

children's adaptation to the classroom environment, particularly with regard to their responses to various task demands. Hence, the following section of this review examines what the cognitive-developmental literature yields relevant to this aspect of the socialization process.

The Cognitive-Developmental Approach

With regard to interpersonal adjustment, it can be said that nearly all of the relevant cognitive-developmental literature centers on one construct: role-taking ability. In sharp contrast, the cognitive-developmental literature relating to the adaptive processes involved in meeting environmental task demands can be found in several distinct lines of inquiry. This review briefly considers the contributions of four relevant programs of research, including the work on impulsive versus reflective problem solving, delaying gratification, attribution theory, and metacognitive processes.

As children develop, they encounter an increasing need to impose organization on their behavior. The disorganized behavior of infants must gradually give way to behavioral responses resembling those of adult members of society. This is a necessity if children are to adequately merge with our existing social systems, which include the social world of the school classroom. Maccoby (1980) discusses behavioral organization and presents a picture of what is involved in terms of successful organization of behavior:

1. The child begins to be able to delay certain actions until a time when they will fit in more appropriately with concurrent actions or will have more acceptable consequences.
2. Future consequences are weighted more heavily in the choice of present actions.

3. If the pursuit of a goal is temporarily blocked by an externally imposed barrier, the child is able to put the blocked activity on hold while attempting to find a way around the barrier.
4. When goal activity is blocked, the child does not become so emotionally aroused that his or her behavior becomes disorganized in a tantrum episode.
5. The child becomes capable of doing more than one thing at a time--integrating those enterprises that are compatible.
6. The child becomes more able to concentrate--to block out extraneous, irrelevant stimulation and maximize the input of information (from the external environment and from memory) needed for the execution of the current plan. (p. 163)

Maccoby suggests that three developmental self-regulating mechanisms underlie the process of progressive behavioral organization. These include the learning of inhibition, developing a future-time orientation, and acquiring emotional control. Work in each of the four areas discussed below relates to the developmental progression of behavior organization, and can be considered in terms of an individual's increasing capacity to grapple with the task-related demands of his/her environment.

Impulsive versus reflective problem solving. Children vary in terms of the way they approach problem situations. One source of variance is that of being impulsive versus reflective in one's thinking. Impulsive thought is characterized by quick and hasty judgments reflected in immediate, and often inappropriate (or inaccurate), decisions. In contrast, reflective thought involves careful and deliberate consideration before selecting a response from a variety of available alternatives. Younger children are more impulsive than older children in their thinking. However, even at a quite young age, individual differences exist in the ways in which children approach problem

situations. The work of Kagan, Rosman, Day, Albert, and Phillips (1964) represents the kind of research involved in determining reflective-impulsive differences in children's problem-solving behavior. For example, the Matching Familiar Figures (MFF) test requires careful and planful consideration of alternatives prior to responding in order to score accurately. Children differ significantly in their response to this type of task. In general, high error rates are evidenced among those children who respond hastily, while low error rates result from taking one's time to carefully peruse the task before emitting a response. Although there are exceptions to this pattern (with faster workers making few errors, while slower workers make a great many), subjects generally fit one of the first two patterns described and can thus be categorized as impulsive or reflective in their task-related behavior.

It is quite possible to consider how differences in approaches to problem solving, in terms of impulsive versus reflective thought, might relate to children's adaptation to classroom task demands. For example, it was noted earlier that attention has emerged as a key variable in determining the achievement performance of elementary school children (see Cartledge & Milburn, 1978). Reflective children can sustain attention to a task for longer periods of time than impulsive children (Maccoby, 1980). Apparently, reflective children are better able to impose structure on their own activities, to explore objects for their full potential (rather than regarding them superficially), and to consider a variety of alternatives in terms of

actions to impose upon objects (Kagan, 1971). They are more planful and systematic in their approach than are impulsive children. This reflective approach has the payoff of more accurate responding. Considering the importance of accurate responding in school and the great attentional demands placed on children in classroom settings, it appears that differences in impulsive versus reflective approaches to problem solving in the classroom may have considerable implications for the overall success of children in school.

Delaying gratification. Young children find it difficult to wait for anything. Gradually, children do learn to wait for what they need or desire; however, some children have a more difficult time doing this. Most of the research regarding the ability to delay gratification has investigated the ability of children to wait for a more highly desirable prize, rather than to immediately accept a less desirable alternative. The work of Mischel and Staub (1965) is typical in this regard. Children are placed in a room and are shown some marshmallows (the more desirable reward) and some pretzels. The experimenter explains that he will leave with the marshmallows and pretzels and that if the child can wait until he returns, s/he will receive the marshmallows. The child can call the experimenter back at any time by pushing a button, but then s/he will receive only the pretzels. Results indicate that there is a clear developmental progression in the ability to wait for the larger reward. It appears waiting is a skill and that children must have some way to fill the waiting time without

distracting themselves to the point where they forget about the ultimate goal (Maccoby, 1980).

Mischel and Underwood (1974) investigated what children are learning to do when they learn to delay. They attempted to influence children's thought processes during "wait time." First they varied what children could visibly see (marshmallows alone, pretzels alone, neither marshmallows nor pretzels visible) and examined differences in the amount of time children could wait for the reward. Children had an easier time waiting for the more desirable reward when neither one was visible.

In subsequent work, Mischel and his colleagues investigated the use of mental imagery, instructing children to think about either the rewards or "other fun things to do." Those children who thought about things other than the rewards were better able to wait. Still later investigations into "hot" (consummatory) versus "cold" (nonconsummatory) kinds of thinking indicate that cold cognitions are far superior in their enhancement of the ability to delay gratification. In addition, children's awareness of useful strategies to aid the waiting process increased with age.

Clearly, the key elements involved in delaying gratification (waiting, planfulness, and effort expenditure) are required elements of appropriate classroom behavior. The work on gratification delay thus exposes several areas relevant to the adaptation of children to classroom task demands. Inquiries into metacognitive processes and student attributions regarding success and failure further illuminate

the influences on planful and effortful behaviors. The next section, on attribution theory, examines the ways in which effort expenditure may be influenced by children's cognitions about success and failure.

Attribution theory: Causal attributions for success and failure. Attribution theory rests on the guiding principle that people strive to understand why things happen, especially with regard to unexpected events (Heider, 1958; Kelley, 1967; Weiner, 1979, 1980). Much of the attributional research concerns the relationship between causal attributions for achievement-related outcomes and subsequent achievement-oriented behavior (see, for example, Weiner, 1974; Weiner, 1979; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1971). Investigations of this sort have focused on three major areas: information processing and its effects on causal attributions, the types of causal attributions made to explain achievement events, and the effects of various causal attributions on affect, expectancies, and subsequent achievement strivings (Frieze, 1976). It is the third of these areas which is most relevant to the present investigation.

School can be characterized by a series of success and failure experiences. According to attribution theory, when a student succeeds or fails (particularly if the outcome is unexpected) s/he will try to make sense of the event by making some kind of causal attribution as to why it happened. For example, if someone fails on an important exam it may be attributed to a lack of ability, insufficient effort, bad luck, or test difficulty. Attributions such as these can be conceptualized as falling within one or more of three central causal dimensions:

stability, locus, and control (Weiner, 1979). Each dimension has been shown to relate to various psychological consequences which bear impact on subsequent achievement strivings (for a full discussion of dimensionality and attributional consequences see Weiner, 1979).

Individuals differ as to the kinds of causal attributions made. Fyans and Maehr (1979) investigated the effects of attributional style on task selection and achievement among fifth through twelfth graders. They found that students generally chose to perform tasks which were compatible with their attributions regarding their own success on achievement tasks. Students who attributed their success to ability (a stable, internal factor) were more likely to select tasks where competence was requisite to outcome. Students who saw success as a function of luck (an external, unstable factor) avoided ability-related tasks, preferring instead games of chance. These results have implications for schooling that relate to the opportunity for students to select for themselves those activities they wish to engage in. Ability-related activities are likely to be more facilitative of intellectual growth than are games of pure chance. Hence, consideration given to attributional style might be appropriate in situations where students are allowed to choose activities for themselves.

Perhaps more important in terms of students' adaptation to classroom task demands which are teacher imposed is the question of how students' achievement-related attributions influence effort expenditure on subsequent achievement-related tasks. Students who attribute failure on a particular task to a lack of ability are less likely to

expend great effort on future, similar tasks, than are those who blame their failure on a lack of effort (Weiner, 1979). This is so because ability is perceived as an internal, stable condition about which relatively little can be done in terms of improving future performance. In a majority of classroom situations, effort is certainly required to achieve success. Hence, those students whose attributional style predisposes them toward ability as a causal explanation for behavior are at somewhat of a disadvantage. This population includes, to a disproportionate level, both girls and minority students (Frieze, 1980). Dweck (1975) has suggested that training students to attribute success and failure experiences to effort, rather than ability, may help to improve both student motivation and achievement-related behavior.

Such "attribution training" might be fruitful for some students, at some stages of development. However, Ruble (1980) suggests that developmental issues are involved in determining the nature of one's achievement strivings. She suggests, for example, that cultural conventions underlie the rules, standards, and values of achievement motivation. In addition, age-related cognitive-developmental shifts in information processing may influence children's achievement behavior. Studies by Halperin (1977) and Veroff (1969) show that children younger than age 6 or 7 prefer easy tasks, while older children choose tasks of more moderate difficulty. Developmental changes in children's achievement-related concepts such as ability, success and failure, challenge, and effort-outcome covariation also influence children's approaches to academic tasks (Ruble, 1980). A fairly radical shift in

such concepts may occur at some time between ages 7 and 8 (Shantz, 1975). Hence the first few years of school may be particularly important in terms of the development of children's conceptions of themselves as students. Children also undergo developmental changes in their ability to process and integrate information (Kun, Parsons, & Ruble, 1974; Ruble, 1980). Younger children are less able than older children to consider simultaneously the relationships between effort, ability, the difficulty of a task, and outcome. Although even first graders may recognize that a low-ability student must try harder to achieve the same outcome as a higher-ability student, more subtle distinctions are possible only with increasing age (Karabenick & Heller, 1976; Kun, Parsons, & Ruble, 1974). Nicholls (1978), for example, found that young children believe they are competent only if they try very hard, not if they succeed with little effort. (See Ruble, 1980, for an excellent review of developmental influences on children's understanding of achievement-related concepts and subsequent achievement-related behavior.)

A particularly important program of cognitive-attributional research is that of Susan Harter and her colleagues at the University of Denver. This work is well described in Harter and Connell (1985). Using a causal-modeling approach, Harter and Connell examined relationships between a variety of variables relevant to classroom socialization processes and the development of cognitive competence in elementary and junior high school students. Various models were tested, the key components of which were perceived control over academic outcomes,

perceived cognitive competence, intrinsic versus extrinsic motivational orientation, and academic performance. The model which best fit Harter and Connell's (1985) data was one in which perceived control played the critical role. In other words, student knowledgeability regarding who or what controls the outcome of academic events emerged as the most important predictor of academic performance.

The control instrument used in the Harter-Connell model (see Connell, 1980, for a full description of this instrument) includes three basic sources of control: "Internal" (I am responsible for this event), "Powerful Others" (others are responsible for this event), and "Unknown" (I don't know why this event occurred). Apparently it is the Unknown control scale which is most germane to an understanding of the development of cognitive competence. Thus, children who believe they know or understand the causal elements involved in academic performance are more likely to succeed academically (e.g., evidence greater achievement) than are those who say they do not understand why particular academic outcomes occur. As Harter and Connell (1985) view it, the process proceeds something like this: Knowledge of the source of academic outcomes leads to improved academic performance, which in turn leads to greater feelings of cognitive competence, and finally to enhanced intrinsic motivation to perform.

This model of cognitive competence seems to be relevant to issues of "social" competence, or successful socialization into the student role. This is particularly so in relation to the development of competence in the task demands socialization domain: Getting students

to feel more academically competent and more knowledgeable regarding the control of outcomes in this area should increase students' willingness to accept responsibility for their academic performance (i.e., to demonstrate greater adjustment to the task-related demands of classroom life).

The Harter-Connell model is relevant not only to the task demands aspect of classroom socialization but to the area of interpersonal adjustment as well. It seems reasonable to assume that key elements relating to academic learning (e.g., perceived control, perceived competence) might similarly emerge as important factors relating to learning outcomes in the social domain. This assumption can be examined in the present study because two of the Harter instruments include social subscales; these scales parallel the cognitive perceived control and perceived competence dimensions discussed above (see Connell, 1980; Harter, 1979).

There is a clear focus in the overall study on students' social cognitions relating to classroom socialization processes; it is thought that the relationship between teacher behavior and student outcomes is mediated by students' cognitive processing. That is, students' attempts to analyze and understand the outcome of events are thought to contribute greatly to the differential effects of teacher behavior on student behavior. Given this cognitive-attributional "bias," the work of Harter and her colleagues (e.g., Connell, 1980; Harter, 1979, 1980, 1982a, 1982b; Harter & Connell, 1985) seems particularly relevant to an understanding of socialization processes in classrooms. (The reader is

referred to the student measures section of this report [Chapter III] for more detailed descriptions of Harter's and Connell's instruments selected for use in this study.)

To summarize, attribution theory suggests that children strive to understand their success and failure experiences in the classroom. Their causal ascriptions for past achievement-related behavior are likely to influence students' sense of control, their perceived competence and competency affect, as well as motivation to perform. In turn, both choice of activities and effort expenditure on subsequent academic tasks are likely to be affected. Clearly, this line of research broadens our knowledge of how children come to deal with environmental demands. It does not, however, adequately address the issue of planfulness, as it relates to the organization of behavior in classroom settings. In this regard the literature on metacognitive development is more illuminating.

Metacognitive development: Learning how to learn. Learning to plan for one's own learning experiences is an important part of adapting to classroom task demands. Metacognitive research informs us about this aspect of school socialization. Metacognitive development refers to the acquisition of knowledge and cognition about cognitive development (Meichenbaum & Asarnow, 1979), or "knowing about knowing" (Brown, 1975). Central components of metacognitive development include checking, planning, asking questions, self-testing, and monitoring ongoing attempts to solve problems (Meichenbaum & Asarnow, 1979). Most of the research on megacognition concerns metamemory (Flavell, 1977; Flavell &

Wellman, 1977; Meichenbaum & Asarnow, 1979), although some investigations have been conducted in the areas of metaattention, metacommunication, metalinguistics, and metacomprehension. This review is restricted to consideration of research relating to metamemory, or knowledge about memory. (For an excellent review of research pertaining to metamemory see Brown, 1977; Flavell, 1977; or Flavell & Wellman, 1977.)

Little is known about how children acquire knowledge about memory. Both parents (Flavell, 1977) and teachers (Brown, 1977; Flavell, 1977) are likely to influence this process. Brown (1977) suggests that metamemoric development may be more educational than maturational in nature, and reviews a number of cross-cultural studies to emphasize this point. She points to the fact that several years of schooling are required before children are able to effectively use mnemonic strategies and posits that "deliberate remembering as an end in itself rather than as a means to achieve a meaningful goal is very much a school-related activity" (p. 248).

Although the exact relationships between metamemory and memory behavior are as yet unclear (Flavell, 1977), it is certain that such relationships do exist. Given the developmental lag between certain aspects of metamemory, such as knowledge of mnemonic strategies and the application of that knowledge, it is reasonable to assume that the relationship between metamemory and memory behavior becomes more consistent with age.

Given the apparent emphasis in school on the importance of memoric capabilities, it would seem that some degree of metamemoric sophistication is requisite to successful school experiences. Meichenbaum and Asarnow (1979) discuss the implications of metacognitive research for the classroom. They suggest that teachers need to be taught a metacognitive perspective, which could then be modeled for the benefit of students. Metacognitive processes should be directly taught, with attention given to the process, rather than just the product, of the assignment. They suggest that "in short, the entire study-skill process could become the focus of education" (p. 30). Although promoting academic knowledge is a key, legitimate goal of our educational system, it is the development of sophistication regarding the processes of knowing which frees the individual to pursue an education ultimately independent of the formal channels of schooling. Research on metacognitive processes is thus relevant to an understanding of children's successful adaptation to classroom task demands in particular, as well as their more general educational success.

Social Cognition and Classroom Socialization: How to Proceed?

It is apparent that a great many lines of research contribute to an understanding of classroom socialization processes, both in the areas of interpersonal adjustment and adaptation to classroom task demands. This review has selectively presented relevant programs of research conducted in both the cognitive-developmental and the social learning/behavioral traditions. Other works might have been included.

For example, the modeling and reinforcement literature, as well as the cooperative learning research, was omitted. It is impossible, in a review of this sort, to be totally inclusive. The research which was reviewed is ample to indicate that although a great deal of information is available regarding successful socialization into the student role, we are still a long way from fully understanding the processes involved. This study seeks to further our understanding, particularly with regard to students' social cognitions relating to interpersonal adjustment and adaptation to classroom task demands.

In the first section of this review it was brought out that the term "social intelligence" means different things to different people. A distinction was made between "content" and "process" oriented approaches to the study of social cognition. Furthermore, it was said that this particular study would focus on both "content" and "process" aspects of student thought as related to classroom socialization. The need for this dual focus became apparent to the author during the literature-review process. Dweck (1981), for one, discussed the advantages of an expanded focus such as the present one. There are also logical reasons why a combined approach to the study of social cognition is more appropriate, particularly with regard to classroom socialization processes.

In general it appears to be true that to "fit in" or to adjust to a particular situation, one must know what is expected in terms of norms or standards for behavioral conduct (content knowledge). However, it is unlikely that knowledge of norms and standards, by itself,

is enough; one must be able to act in accordance with norms and standards if one is to appear well adjusted (process knowledge). This is so regardless of the particular situation, or social event, involved: a party, classroom life, or adjusting to society at large.

This investigation is concerned with adjustment in the social world of the classroom and thus focuses on students' knowledge of norms and standards for behavioral conduct as well as their understanding of how to operationalize or use this knowledge. To assess the former, which is called content knowledge, a fairly direct approach seemed appropriate. Thus, for example, asking subjects to nominate and discuss characteristics of "good workers" and "kids who get along well" seemed a reasonable way to determine what they knew about what it means to be well adjusted in each of the two major socialization domains: interpersonal adjustment and adaptation to classroom task demands.

It is more difficult to determine a reasonable way to assess "process knowledge." The literature-review process was vital in this regard. As this process progressed, a common thread emerged which linked together much of the research considered; this was a focus on problem solving of one sort or another. For example, the research reviewed earlier relating to impulsive versus reflective problem solving, as well as studies concerning gratification-delay processes, certainly maintained such a focus. Similarly, studies of cognitive behavior modification techniques such as the "Think Aloud" program of Camp and Bash (1981) and the "turtle" technique employed by Robin et al. (1976) indicate the importance of problem-solving skills in

adjusting to classroom life. The research on metacognitive processes emphasizes the importance of a variety of cognitive strategies in solving problems relating to the kinds of task demands placed on students in school (see, for example, Flavell, 1977; Flavell & Wellman, 1977). In the interpersonal realm, empirical evidence for the significance of social cognitive problem-solving skills in determining overt behavioral adjustment is presented in three volumes by Shure and Spivack (1978), Spivack et al. (1976), and Spivack and Shure (1974). Finally, Dweck (1981) concluded her discussion of social cognitive processes in children's friendships by saying that "any adequate definition of social adjustment or social skills must include the ability to cope with and surmount adversity and to resolve conflicts" (p. 332). Thus, it appears that an important aspect of social adjustment in either classroom-socialization domain is the ability to grapple with and resolve conflict situations.

The current investigation reflects a conceptual commitment to the importance of problem-solving skills in determining children's success in school. Thus, it was decided to present subjects with some kind of problem-solving task to assess their ability to put into action their knowledge of norms and standards for behavioral conduct. Researchers at Hahnemann Medical College and Hospital in Philadelphia have shown that children's cognitive problem-solving skills (in particular, means-ends thinking ability) are directly related to teachers' judgments of classroom behavior with regard to both adaptation to the task-oriented nature of the classroom and the ability to behave in ways

compatible with effective group functioning (Shure & Spivack, 1972; Spivack et al., 1976). It was therefore decided to use a measure of means-ends thinking in the present study to examine students' ability to activate their "content knowledge," or understanding of norms and standards, when faced with typical, everyday classroom conflict situations. The means-ends problem-solving (MEPS) measure developed by Platt and Spivack (1975) was selected for this purpose. The MEPS measure presents subjects with interpersonal story vignettes requiring completion. As the ability to solve problems in both the interpersonal and task-demands domains was of interest, the MEPS measure was modified for use in the present study to include vignettes or stories of problem situations in both socialization domains. (See Chapter III for further information regarding the original MEPS measure, as well as the adapted measure employed in the present study.)

To add to our understanding of classroom socialization processes, it is necessary to examine the effects of both teacher- and student-level factors on "content" and "process" knowledge components. The work of Susan Harter and her colleagues reviewed earlier in this chapter was most influential in helping to determine relevant student-level variables, particularly in relation to the process knowledge component of classroom socialization. Teacher-level variables thought to be influential with regard to classroom socialization practices (e.g., teacher socialization priority) were identified in earlier research done at the Institute for Research on Teaching and elsewhere (Deci, Schwartz, Sheinman, & Ryan, 1981; Prawat, 1980, in press). The

relationship between these variables and a host of student outcomes is being examined as part of the larger Socialization Outcomes Project, of which this is a part. (Again, the reader is referred to Chapter III for full discussion of the choice of student and teacher measures included in the present study.)

To conclude, the literature-review process served the purpose of illuminating distinctions which are necessary to make when considering the area of social cognition, particularly in relation to student adjustment to classroom life. It also brought to focus the necessity of blending and combining the best of what various approaches to the study of social cognition have to offer. As a result, the present study made use of a variety of approaches to unraveling the relationships between teacher thought (assumed to reflect teacher behavior), student thought, and student behavior. It was hoped that through the use of student interviews focusing on both "content" and "process" aspects of the socialization process, the relationships between social cognition and social behavior in the classroom might become somewhat more clear.

CHAPTER III

DESIGN OF THE STUDY

Population and Sample

Eight elementary school teachers and selected students in their classes were chosen for inclusion in the study.

Schools

Subjects came from eight different public elementary schools, all located within the city of Lansing, Michigan. The percentage of families receiving Aid to Families with Dependent Children (AFDC) in each school ranged from 6.17% to 38.89%, with a mean AFDC rate of 18.61%. Each teacher priority group included in this study ("interpersonal" and "task demands") was represented by four schools. The mean AFDC percentages for schools within the interpersonal and task demands subgroups were 19.98% and 15.23%, respectively. This was considered to indicate that the mean socioeconomic status (SES) was approximately equal across priority groups. Furthermore, the average AFDC rate for all 40 elementary schools in the Lansing School District at the time of this investigation was 22.56%. It can therefore be considered that the two groups of schools selected for the study were fairly representative of the school district at large, at least in terms of overall SES.

Teachers

The eight teachers selected for inclusion in this study were all female. Their years of teaching experience ranged from 12 to 32, with a mean of 20 years. All teachers were currently participating in the Socialization Outcomes project at Michigan State University's Institute for Research on Teaching (IRT). Four of the teachers placed primary emphasis on the interpersonal socialization domain in their responses to a questionnaire administered before the study began. The primary goal for the remaining four teachers appeared to be successful student adaptation to the task demands of classroom life.

Teachers' goal orientations were determined by using the Teacher Priorities Questionnaire (TPQ, see Appendix D). Teachers' responses to this instrument yield a priority profile which reflects the relative emphasis placed on the following three types of educational goals: (a) the learning of academic content, (b) the development of interpersonal skills, and (c) adaptation to classroom task demands.

Based on responses to the TPQ, 31 teachers were selected from a sample of 108 to participate in the Socialization Outcomes research project. Of these, 12 constituted a focal group for the first year of data collection; 12 others formed a focal group for the second year of data collection. All 31 classrooms participated in large-scale pre- and posttest activities. Of the 12 first-year teachers, six represented a "task demands" orientation and six represented an "interpersonal" orientation. The second-year focal group included six "content"

oriented teachers as well as six teachers having a mixed (interpersonal and task demands) goal orientation.

The eight teachers included in the present study were selected from the "first-year" cohort. Classroom management ratings were used to eliminate two teachers in each goal orientation: interpersonal and task demands. Based on approximately 18 hours of observation per classroom, members of the Socialization Outcomes research team completed a high-inference classroom management rating form (see below). For each goal orientation, the two teachers receiving the lowest composite ratings were eliminated from the study. The rationale is as follows: Effective classroom management and effective teaching go hand in hand (Brophy, 1979); therefore, little learning of any type, either relating to academic or social content, is likely to occur in very poorly managed classrooms.

Of the eight teachers included in the study, five taught third grade, two taught fourth grade, and one taught fifth grade. It was not known at the time of data collection just what the breakdown was by grade level for each priority group, as interviewers needed to be blind to this factor during the data-collection phase of the study. Following the collection and coding of data, it was found that all of the interpersonal teachers had third grades, while the task demands teachers had one third grade, two fourth, and one fifth grade. Thus, any differences found which might be attributed to teacher priority effects have to be considered in light of the slightly different age range of students within each group. The mean age of students in the

interpersonal classes was 9 years 6 months, while children in the task demands classes averaged 10 years 0 months. It is unlikely, given the 6-month average age differential, that any differences associated with teacher priority group are attributable to student maturity differences. Table 1 describes the school and teacher sample included in the study.

Table 1

Characteristics of Schools and Teachers

Teacher/ School	Teacher Priority	AFDC Percent[a]	Grade Level	Years Experience	Effectiveness Rating[b]
1	IP	10.08	3	32	4.075
2	IP	38.89	3	29	4.125
3	TD	26.82	3	16	3.875
4	TD	6.17	5	17	3.750
5	IP	8.43	3	12	4.000
6	TD	18.18	4	13	4.625
7	IP	22.53	3	17	4.025
8	TD	9.75	4	24	4.500

[a]By school, not classroom.

[b]Mean score for Items 4, 6, 7, and 8.

Students

Sixty-four later-elementary students (eight per classroom) were selected for inclusion in the study. Selections were made by imposing a specific set of selection criteria on teachers' ratings of children's actual competence in the classroom. For every child in her class, each teacher completed a version of Harter's (1979) Teacher's Rating Scale of Child's Actual Competence (TRC), adapted specifically for use in this study (see Appendix C). Subjects received subscale scores in each of three competence domains: intellectual competence, interpersonal adjustment, and adaptation to classroom task demands. Mean scores for each subscale could range from a low of 1 to a high of 4. Eight target students (four males and four females) were selected from each class. Primary interest centered on selecting target students who were more and less socially competent as determined by teacher ratings. The Intellectual subscale was used to control for halo effects in teacher ratings based on teacher perceptions of student ability. Thus, children who received extreme ratings on the Intellectual subscale were eliminated: All target students scored above 2.3 and below 3.7 on a 4-point scale.

A certain degree of proficiency in both areas of classroom socialization was considered necessary for satisfactory classroom adjustment. In other words, scoring high in the area of adaptation to classroom task demands but low in the area of interpersonal adjustment (or vice versa) was not accepted as evidence of overall classroom adjustment. Interest centered on target students who were, and were

not, well socialized overall into the student role. Thus, all children whose mean scores on the two socialization subscales were more than one point apart were eliminated from this study. A composite socialization mean was then calculated for each student by averaging the means obtained on the "Task Demands" and "Interpersonal" subscales. With intellectual competence controlled for, and congruence between the two socialization means assured, the following selection procedures were employed for each sex. The child with the highest composite socialization mean and the child with the lowest composite socialization mean were chosen for inclusion in the study. Of the remaining children, two were selected who represented nearly equidistant points between the two extremes already selected. The distance between the two midrange students was equal to or greater than the distance between the extremes and the closest midrange student.

In some cases the above selection criteria were impossible to implement. If after controlling for intellect and congruence between socialization means only four students (within sex) remained, those four were chosen as target students. If fewer than four students (within sex) remained, students with Intellectual subscale means of greater than 3.7 were added to complete the sample.

The final composition of the sample within each classroom was as follows: two highly socialized students (one male, one female), two moderately high socialized students (one male, one female), two moderately low socialized students (one male, one female), and two poorly socialized students (one male, one female). A variety of racial

and ethnic groups were represented in the final sample of 64 subjects; consideration was not given to race/ethnicity when selecting the sample, although children who had known difficulties (as reported by teachers) with either reading, speaking, or understanding the English language were excluded. The majority of the subjects (65.6%) were Caucasian. An additional 21.9% were Black, 7.8% were Hispanic, and the remaining 4.7% were Asian or Native American.

Summary

To summarize, the sample consisted of eight later-elementary-school teachers, four of whom appeared to emphasize interpersonal skills development over content or "task demands" concerns, and four of whom appeared to place primary emphasis on fostering students' adaptation to classroom task demands. Within each class eight students, balanced by sex, and who ranged from low to high with regard to overall socialization into the student role, were selected for inclusion in the study.

Instrumentation: Overview and Rationale

Teacher Measures

Teacher Priorities Questionnaire (TPQ). The TPQ was developed at Michigan State University's Institute for Research on Teaching for use in the Socialization Outcomes project. The questionnaire measures the priority teachers place on three different types of goals for their students: learning academic content, adapting to classroom task demands, and interpersonal adjustment. The TPQ consists of 22

forced-choice items plus eight distractors, each with three foils. For each item, one foil reflects a concern with content learning, one foil pertains to interpersonal skills development, and the remaining foil deals with student adaptation to classroom task demands. Teachers receive a score on each of the above three areas which, together, are taken to represent their professed overall priority system or goal orientation in the classroom. The psychometric properties of the TPQ are quite good. Internal consistency obtained thus far for each of the three scales on the questionnaire is high, with Cronbach's alpha for standardized scores being .72 on the content priority scale, .89 on the interpersonal priority scale, and .82 on the task demands prioritization of teachers (i.e., the emphasis teachers place on getting students to take responsibility for their own learning). Alphas obtained for nonstandardized scores were .73, .84, and .90, respectively, for the three scales. Further information on the development and psychometric properties of the TPQ is available in a Socialization Outcomes progress report (Prawat, Anderson, Nickerson, Putnam, Anderson, Anderson, & Diamond, 1982) and in a paper presented at the 1983 annual meetings of the American Educational Research Association (Prawat, Anderson, Anderson, Jenkins, & Anderson, 1983). A complete copy of the TPQ is found in Appendix D.

Responses to the TPQ resulted in the classification of teachers in this study as having primarily "interpersonal" (IP) or "task demands" (TD) concerns with regard to the socialization goals they held for their students. Teachers' socialization priority was included as a

variable in this study to explore its effects on students' socialization. Recent evidence from the IRT's Affective Outcomes project suggests that the priorities or goals teachers hold for their students with regard to classroom socialization do, in fact, impact upon a variety of student outcomes, including attitudes toward school, achievement, and interactional patterns among peers (Nickerson & Prawat, 1981; Prawat, Anderson, Diamond, McKeague, & Whitmer, 1981). Thus, it was anticipated that teachers' socialization priorities might significantly affect such student outcomes in the socialization domain as "content knowledge" (CK) and "process knowledge" (social-problem-solving ability--SPSA).

Classroom Management Improvement Study (CMIS) ratings. For purposes of teacher sample selection only, the 12 teachers forming the core focal group for the IRT's Socialization Outcomes research project (year 1 of data collection) were rated on eight dimensions of managerial effectiveness. Ratings were made following a period of extensive classroom observation during the first 2 weeks of the 1982-1983 school year. The eight dimensions included in the present study were drawn from the Classroom Management Improvement Study (CMIS) described in Evertson, Anderson, and Clements (1980). They include (a) suitable traffic patterns; (b) degree of visibility; (c) appropriate general procedures; (d) suitable routines for assigning, checking, and collecting work; (e) degree of student success; (f) effective monitoring; (g) amount of disruption; and (h) task-oriented focus. The CMIS ratings have been shown to differentiate between more and less effective

managers at the elementary school level. Furthermore, it has been suggested that ratings on such measures made during the first few weeks of school are predictive of managerial and organizational effectiveness throughout the school year (Emmer, Evertson, & Anderson, 1980).

In the present study, ratings were made on 5-point scales. Unless otherwise indicated (e.g., dimensions V and VII), the scales were defined as follows:

5 The behavior is exhibited frequently or the description is highly characteristic of the teacher (or classroom).

4 The behavior is exhibited often or the description is mostly characteristic of the teacher (or classroom).

3 The behavior occurs occasionally or the description is somewhat characteristic of the teacher (or classroom).

2 The behavior is exhibited rarely or the description is not very characteristic of the teacher (or classroom).

1 The behavior never occurs or is not at all characteristic of the teacher (or classroom).

Mean ratings on dimensions 4, 6, 7, and 8 were used to select the final sample of eight teachers for this study. It was felt that these dimensions best related to the central focus of the current investigation. All teachers retained in the study achieved a mean effectiveness rating of 3.75 or above; ratings ranged from 3.75 to 4.63, with an overall mean rating of 4.12. Teachers eliminated from the study achieved mean effectiveness ratings between 2.38 and 3.0.

To aid observers in their completion of the CMIS ratings, an expanded description of what was involved in each dimension was provided. Copies of the CMIS ratings and the dimension descriptions are included in Appendix D.

Teacher interviews. In June of 1983 teachers were interviewed in conjunction with the IRT's Socialization Outcomes project. The interviews were conducted by one female researcher and included questions about four major areas: (a) direct questions to teachers about their general priorities and beliefs, (b) rationales for specific instructional and organizational decisions, (c) questions about rules and standards for appropriate behavior, and (d) teacher reaction to the Teacher Priorities Questionnaire (TPQ).

Teacher responses to area c (above) were used as data in the present investigation. During this portion of the interview, teachers were asked to name the first and second most important rules in their classroom and explain why they had them, as well as to list as many classroom rules as they could think of. They were also asked to describe appropriate and inappropriate behaviors that students might evidence in their classrooms and to specify the worst thing a child could do, as well as the one thing a child might do that would make them the happiest. Rationales for the "worst" and "happiest" things were requested.

In addition to the questions outlined above, teachers were told how their students had answered the same questions, particularly those relating to classroom rules, and were asked to compare their own views to the perceptions of their students. Specifically, each teacher was presented with a list of classroom "rules" generated by the eight target students in her room. She was then asked to indicate which of

the rules on the list had been either formally presented or otherwise outwardly stressed by her at some time during the previous school year.

For purposes of the present study, teachers were also asked to respond to the following two questions:

1. Pretend that two new students are entering your school and you can select which one is to enter your room. Both are the same sex. Student A is a really good worker, but does not get along very well with other kids. Student B gets along really well with other kids, but is not a very good worker. If you could choose either Student A or Student B to be a new member of your class, who would you choose? (CHECK ONE.)

____ Student A		Student B ____
(the really good worker)	OR	(gets along really well)

2. In the space below, please describe in detail <u>why</u> you would select the student you chose in #1 above, rather than the one you did not choose. Use both sides of this paper if needed. Be as detailed as possible in your rationale.

The interview items described above parallel items included in the student interview. In this way, student and teacher social cognitions relating to behavioral norms and standards in the classroom can be directly compared.

As the entire interview to which teachers responded contained much information <u>not</u> used in the present study, a copy of the total instrument is not appended to this report. All relevant interview items have

been discussed above. (A copy of the total interview packet is available, upon request, from the author of this report.)

Socialization outcomes effectiveness rankings. In the context of the IRT's Socialization Outcomes project, "effectiveness" scores for the two socialization domains were derived for the sample of 31 classrooms involved in the larger study. Effectiveness rankings for the subsample of eight classrooms in this study were used as a grouping variable for several of the analyses. A brief description of the procedures employed to determine effectiveness scores is thus in order. Five student measures were used to evaluate teacher effectiveness:

1. Connell's (1980) Multidimensional Measure of Children's Perceptions of Control,
2. Harter's (1979) Perceived Competence Scale for Children,
3. Harter's (1980) Intrinsic Versus Extrinsic Orientation in the Classroom Scale,
4. A sociometric rating scale developed by Singleton and Asher (1977, 1979), and
5. reading and math achievement scores taken from the Stanford Achievement Test (SAT; see Buros, 1978).

(These instruments are briefly described in the Student Measures section of this report.) The control, competence, intrinsic-extrinsic orientation, and sociometric measures were administered to students in the Fall of 1982 and the Spring of 1983. The achievement test was given by the Lansing School District in the Spring of 1982 and the Spring of 1983.

The five instruments were broken down into separate subscales (e.g.,"internal control for positive cognitive outcomes"). The first analysis focused on residual-gain differences at the classroom level. Here the student was the unit of analysis. Variables that yielded significant effects ($p < .05$) at the classroom level were then factor analyzed in order to determine if fairly well-defined "task demands" and "interpersonal" factors would emerge. The classroom level effect criterion was used to eliminate variables prior to factor analysis that were not "growth reactive"--that is, that were not differentially affected by influences at the classroom level.

Two distinct factors emerged in the factor analysis. The first, which was clearly a task demands sort of factor, included scales measuring perceived source of control over academic outcomes, perceived competence in academic situations, and preference for tasks requiring independent mastery and independent judgment. Scales included on the second factor were those measuring perceived source of control over social outcomes and degree of racial bias in friendship selections. This factor appears to represent important social or interpersonal outcomes.

Residual gain scores derived from these two factors, the task demands and the interpersonal, were used to identify classrooms where students had shown greater-than-expected or less-than-expected growth in either of the two socialization domains. To compare expected and actual change on the measures, pre- and posttest classroom means on the scales composing each factor were first converted to z-scores. Then,

for each classroom, pre- and posttest factor scores were created by adding z-scores for those scales. Pre- and posttest factor scores were then used to create a residual score for each factor. A residual score of 0 indicated that average student performance at the end of the year was exactly what one would have expected, based on student pretest scores. A positive score meant that students were scoring higher at the end of the year than one might have predicted by pretests, while a negative score indicated that students scored lower than expected at the end of the year. Thus, "average" gains were defined as scores between -1 and +1, "high" gains included all values greater than +1, and "low" gains included those values less than -1.

Once residuals were calculated, classrooms were ranked as to their overall effectiveness in each of the two socialization domains. Due to the independence of the two factors, a classroom could be high in one area while low in the other, high in both areas, or low in both areas. For each factor, task demands and interpersonal, the classroom with the highest positive residual score received the rank of number 1, while the classroom with the highest negative residual score ranked number 31 (the total teacher sample was used). The residual scores and effectiveness rankings in each socialization domain for the eight classrooms included in the present study are displayed in Table 2. For the current investigation, the four classrooms with the highest ranking on the task demands factor were categorized as high in task demands effectiveness; the remaining four were termed low in task demands effectiveness.

The same procedure was used in classifying classrooms as high or low in interpersonal effectiveness.

Table 2

Socialization Outcomes Effectiveness Rankings Relating to the Task Demands and Interpersonal Socialization Domains

Class-room	Teacher Priority	Task Demands Factor Residuals	Rank in 31	Interpersonal Factor Residuals	Rank in 31
1	IP	-1.392960000	19	-0.127133900	16
2	IP	-0.039387200	15	1.435148000	9
3	TD	-2.798235000	25	-1.275148000	24
4	TD	4.314526000	4	-2.948328000	30
5	IP	-1.431623000	20	-1.137893000	21
6	TD	2.435600000	7	-1.796018000	29
7	IP	5.988936000	2	-0.275366900	17
8	TD	2.361233000	8	1.311744000	8

The classroom measures of effectiveness in both socialization domains, as described above, were used as grouping variables in subsequent analyses investigating the relationships between teacher effectiveness and a variety of student socialization outcomes. (Note that two of the classrooms classified for purposes of the present study as high in interpersonal effectiveness achieved residual scores which were considered low-average in terms of the larger teacher sample included in the Socialization Outcomes project. The results of

analyses involving this measure which are discussed later in this report must be considered in light of this fact. Also, it should be noted that teacher effectiveness and teacher prioritization in the task demands and interpersonal domains do not necessarily equate.)

Student Measures

Teacher ratings of child's competence (TRC). An adapted version of Harter's (1979) Teacher's Rating Scale of Child's Actual Competence was used to select a sample of later-elementary children who varied with regard to degree of socialization into the student role. Harter's original instrument consists of four subscales: Intellectual, Social, Cognitive, and General Self-Esteem. Information regarding the development and psychometric properties of the original scale is available in Harter (1979). The adapted version of the TRC consists of three subscales, each with three items. One subscale assesses intellectual competence; the remaining subscales assess competence in each of two socialization domains: adaptation to classroom task demands and interpersonal adjustment. As for the original instrument, items on the adapted version are scored on a 4-point scale, with subscale means ranging from a low of 1 to a high of 4.

As indicated earlier, the Intellectual subscale score was used only as a control factor, to limit the halo effects of teacher ratings. Combined means on the "Interpersonal" and "Task Demands" subscales constituted the basis for sample selection. While nonstandardized scores were used for sample selection purposes (to insure a range of

social competency status within classes), standardized z-scores were calculated, by class, for use in subsequent analyses. This was done to account for differences in means and standard deviations between classes. Teacher ratings were considered to be a viable means for determining classroom socialization competency status, as teachers have been found to generally attend to relevant information, draw inferences appropriately, and develop quite accurate expectations when predicting student performance (Brophy & Evertson, 1981). See Appendix C for a copy of the TRC as employed in this study.

Student interviews. Student interviews represent the primary data of this investigation. The interview developed for use in this study assessed two central constructs: "content knowledge" and "process knowledge." Content knowledge was assessed through an examination of a subject's perceptions of rules, norms, and standards for classroom conduct, as well as his or her ability to enumerate relevant characteristics of classmates s/he considered to be good workers and classmates s/he perceived as getting along well with nearly all the other kids in class. Process knowledge was assessed using a modified version of the Children's MEPS (means-ends problem-solving measure) developed by researchers at Hahnemann Medical College and Hospital in Philadelphia (Platt & Spivack, 1975; Spivack, Shure, & Platt, 1981).

To determine content knowledge, subjects were asked to (a) list classroom rules, (b) select the most important rule from those listed and provide a rationale for its importance, (c) nominate the best workers in class, (d) nominate classmates who best get along with the

other kids in class, and (e) enumerate relevant characteristics of nominees in c and d above. Just as successful socialization into society at large requires the internalization of norms and standards for behavioral conduct, so is an understanding of the parameters for classroom conduct expected to be an antecedent requirement for adequate school adjustment. In the present investigation, content knowledge was considered to be one way to assess the level of students' social competence.

Process knowledge (social-problem-solving ability) was assessed by asking subjects to respond to a series of four "open-middle" stories, designed to measure children's means-ends thinking. Means-ends thinking is defined as

> an ability to carefully plan, step-by-step, means to reach a stated goal. Such planning includes insight and forethought to forestall or circumvent potential obstacles and, in addition, having at one's command alternative routes if such an obstacle is realistically or psychologically insurmountable. Another component of such planning encompasses an awareness that goals are not always reached immediately or that certain times are more propitious than others for action. (Shure & Spivack, 1972, p. 348)

To measure means-ends thinking, subjects are supplied with the beginning and the ending of a story and are asked to create the middle segment which is missing. Responses are coded and scores derived to represent subjects' level of social-problem-solving ability (SPSA).

For the present study, a modified version of the Children's MEPS (means-ends problem-solving) measure (Platt & Spivack, 1975; Spivack et al., 1981) was used to assess SPSA, or "process knowledge." As the original MEPS measure presents social problems in the interpersonal domain only, it was necessary, for purposes of this study, to create

stories representing conflict situations in the area of adaptation to classroom task demands. In the end, two stories were included to represent problem situations requiring resolution in the area of interpersonal adjustment; two stories represented problem states requiring conflict resolution in the area of adaptation to classroom task demands. Of the four stories included in the present study, one (in the interpersonal domain) was taken directly from the Children's MEPS; the remaining three stories were developed specifically for this study. A key purpose in providing story problems in both of the socialization domains focused on in this study was to examine the relationship between SPSA in the two domains. It was thought that a strong, positive relationship should exist between SPSA in the interpersonal domain and SPSA in the area of adaptation to classroom task demands.

Procedures for administering the open-middle stories were modified from those outlined in the Means-Ends Problem-Solving Stimuli and Scoring Procedures Supplement (Spivack et al., 1981). Modifications were made due to the slightly younger age represented in the current sample (8-11 as compared with the 9-12 age range addressed in the Supplement). These modifications were based on pilot testing with third- and fourth-grade students, and include:

1. The use of a concrete visual aid in the form of a story book such as is often produced by third- and fourth-grade children in school, and

2. The suggestion to subjects that they pretend they are telling the story to a younger brother or sister, or maybe a little kindergartener (to orient them toward a story-telling mood).

Complete administration procedures, as well as the four story stimuli used in the present study, are found in Appendix A. The scoring criteria used were those explicated in the Means-Ends Problem-Solving Stimuli and Scoring Procedures Supplement (Spivack et al., 1981), although unique coding systems for the four stories were developed specifically for use in the present study (see Appendix B).

The "content" and "process" measures described above constitute the primary data gleaned from the student interviews. However, two additional types of information were requested of the students.

1. Subjects were asked to select which of two hypothetical students (a really good worker, but one who doesn't get along so well with others, versus one who really gets along well with others, but who is not a very good worker) their teacher would choose to join their class. Subjects had to then indicate who they would prefer to have as a classmate. Rationales for both choices were requested.
2. Subjects were asked to state the worst thing they could do in class, as well as the one thing they could do to make their teacher the very happiest; rationales were required for each of these two questions.

Items 1 and 2 (above) were intended to be treated in a qualitative, rather than quantitative, fashion to provide additional insight into

students' social cognition regarding classroom socialization processes. The reader is referred to Appendix A for a complete copy of the student interview.

Perceived control. Portions of Connell's (1980) Multidimensional Measure of Children's Perceptions of Control were administered to all student subjects. This instrument measures "a child's understanding of why he/she and other children succeed and fail in particular domains of their everyday lives" (Connell, 1980, p. 5). Three sources of control are included: Internal (I am responsible for this event); Powerful Others (other people are responsible for this event); and Unknown (I don't know why this event occurs). Three competency domains are included in the full scale: Cognitive (school-related activities); Social (peer-related activities); and Physical (sports-related activities). An independent assessment of children's general perceptions of control (why successes and failures occur, in general) is also included. Only the Cognitive and Social subscales were used in the present study. Further information regarding the development and psychometric properties of the original scale is available in Connell (1980).

Harter and Connell (1985) have systematically demonstrated that perceived control (particularly the Unknown subscale score) is the key predictor relating to students' achievement, perceived competence, competency affect, and motivational orientation. It was thought that the Harter-Connell model might have important implications for understanding classroom socialization processes. It seemed reasonable to

expect that a dimension which is so key with regard to cognitive outcomes in the classroom could very well likewise emerge as being of key importance with regard to learning outcomes in the social domain. In particular, perceived control was expected to influence the willingness and appropriateness with which relevant "social" knowledge is implemented in the face of social problems encountered in day-to-day classroom life.

Perceived competence. Portions of Harter's (1979, 1982c) Perceived Competence Scale for Children were administered to all student subjects. Like the Control scale, this scale reflects the belief that children may not view themselves the same way across skill domains. Thus, cognitive, social, and physical perceived competency are assessed in this instrument. A fourth subscale measuring general self-esteem is also included. Subscales are not expected to necessarily correlate highly with one another. Reliabilities (KR-20) for the four subscales range from .76 to .83. Further information regarding the development and psychometric properties of the scale is available in Harter (1979). Only the Cognitive and Social subscales were used in the present study.

Harter (1982a) has systematically demonstrated that perceived competence is a key predictor of intrinsic mastery motivation in the cognitive domain. Perceived competence was included in the present study to explore its predictive capacity in the "social" domain, particularly in relationship to children's social-problem-solving ability. It seems logical that a degree of self-assurance (perceived competence) should contribute to one's motivation to master key socialization skills in the classroom.

Intrinsic-extrinsic orientation. Portions of Harter's (1980) scale of Intrinsic Versus Extrinsic Orientation in the Classroom were administered to all student subjects. This instrument was designed to address the following questions: "To what degree is a child's motivation for classroom learning determined by his or her intrinsic interest in learning and mastery, curiosity, preference for challenge in contrast to a more extrinsic orientation in which the child is motivated to obtain teacher approval and/or grades, and is very dependent on the teacher for guidance?" (Harter, 1980, p. 5). The instrument consists of five subscales, each assessing a separate dimension of classroom learning characterized as having both an intrinsic and extrinsic motivation pole. These are:

	Intrinsic		Extrinsic
1.	Preference for Challenge	vs.	Preference for Easy Work Assigned
2.	Curiosity/Interest	vs.	Pleasing the Teacher/Getting Grades
3.	Independent Mastery	vs.	Dependence on the Teacher
4.	Independent Judgement	vs.	Reliance on Teacher's Judgement
5.	Internal Criteria	vs.	External Criteria

Factor-analytic procedures have yielded a clear five-factor solution, demonstrating the appropriateness of the five subscales. Reliabilities (KR-20) range from .78 to .84, .68 to .82, .70 to .78, .72 to .81, and .75 to .83 for the Challenge, Mastery, Curiosity, Judgement, and Criteria subscales, respectively. Further information regarding the development and psychometric properties of the scale is found in Harter (1980). Only the Independent Mastery and Criteria subscales were used

in the present study. Pre- and posttest scores on these subscales were used in the determination of socialization outcomes effectiveness rankings for classrooms included in the study.

Sociometric ratings. Developed by Singleton and Asher (1977, 1979), the sociometric rating scales used in this study require children to rate each of their classmates according to work- and playmate preferences. Ratings are made on a 5-point scale where "1" is low and "5" is high. Subjects complete first one scale and then the other (in this study the "play" scale preceded the "work" scale). Children are told that the question to keep in mind while completing the scale is this: "How much do you like to play with this person at school?" (or, "How much do you like to work with this person at school?"). Sample items are completed by the testing group (classroom) as a whole; children then proceed to rate every other member of their class at their own pace. Responses to the scales are analyzed to indicate both cross-sex and cross-race interaction patterns (or preferences for interaction) for both work- and play-oriented contexts within the classroom setting. Further information regarding this measure is found in Singleton and Asher (1977, 1979). For the present study, sociometric ratings were used solely in the determination of socialization outcomes effectiveness rankings calculated at the classroom level.

Achievement scores. Children in the Lansing School District respond to the reading and math portions of the Stanford Achievement Test each spring. Math and reading scores obtained in the Spring of 1982 (the year preceding data collection) and the Spring of 1983 were

used in the determination of socialization outcomes effectiveness rankings calculated at the classroom level. Reading achievement scores (considered a reasonable proxy for verbal intelligence) were entered as a variable into certain other statistical analyses to assess the contribution of a general ability or "smartness" factor to various student outcomes. The particular scores used for this purpose were those obtained in the Spring of 1982. The achievement test itself, well known and widely used, is not described here; the reader is referred to Buros (1978) for a discussion of the instrument.

Procedures: Sample Recruitment and Data Collection

Approval for this study was granted by the Human Subjects Committee at Michigan State University in conjunction with approval granted to the Institute for Research on Teaching's Socialization Outcomes project. Such approval was gained in the Fall of 1981, after which approval was sought and gained from the Lansing School District Office of Evaluation. At this point, building principals were contacted, and approval was obtained at this level. The Teacher Priorities Questionnaire (TPQ) was then delivered to all third- and fourth-grade teachers in the Lansing School District in the Spring of 1982. Teachers were offered a $10 honorarium for their participation in completing the TPQ. Approximately 90% (of 108 teachers) responded to the questionnaire. Based on an analysis of their responses to the TPQ, selected teachers were recruited for further participation in the study. Additional constraints such as team-teaching assignments and grade-level teaching assignment changes incurred during the Summer of

1982 resulted in a sample of 12 teachers being selected as a focal group (for the first year of data collection) to participate in the IRT's Socialization Outcomes project just prior to the beginning of the 1982-1983 academic year. (Eight of these teachers eventually constituted the teacher sample for the present study.)

Teachers were told they would receive an honorarium for their further participation in the project. Informed consent forms were obtained from all participating teachers at this time. Prior to the first day of school, all teachers were met with to discuss what would be required of them in terms of their participation. At this time, teachers were provided with an observation schedule indicating who would observe in their classrooms during the first two weeks of school, and exactly when such observations would take place. Any scheduling conflicts were worked out at this time.

Classroom Observation of Teachers

Each classroom was observed for a minimum of 6 half-days (approximately 18 hours) during the first 2 weeks of the 1982-1983 school year. After each observation session, the observer dictated a narrative account based on his or her fieldnotes. Following the last observation session in a particular classroom, each observer completed the high-inference rating form assessing teacher management effectiveness, which was described earlier.

Teacher Ratings of Children's Competence (TRC)

During the first month of the 1982-1983 school year, parental permission slips were obtained for all participating students. In October 1982, teachers were requested to complete for all students who had permission the Teacher's Rating Scale of Child's Competence. This instrument was described above. Using selection criteria already discussed, eight target students were selected from each of eight classes to participate in the student interview phase of this study.

Student Testing

In October 1982, all students responded to the following instruments:

1. A Multidimensional Measure of Children's Perceptions of Control (Connell, 1980, selected portions).
2. Perceived Competence Scale for Children (Harter, 1979, selected portions).
3. A Scale of Intrinsic Versus Extrinsic Orientation in the Classroom (Harter, 1980, selected portions).
4. A sociometric rating scale of work- and playmate preferences developed by Singleton and Asher (1977).

Testing occurred in a large-group (whole-class) setting. At least two researchers from Michigan State University were present at the testing session; often the classroom teacher was also available to assist when necessary. All test items were read aloud to the group, and students were requested to not move ahead at their own pace.

During May and June of 1983, students were once again tested on the control, competence, sociometric, and intrinsic-extrinsic measures. Procedures for the administration of these instruments were identical to those used during pretesting.

Student Interviews

Interviews were developed during the period from September 1982 to January 1983. Pilot testing was done in February. (A total of 24 pilot interviews were conducted.) Interviews were done by three white female adults, all of whom had had considerable experience working with children, and two of whom had had a great deal of interviewing experience prior to this study.

Sixty-four students (eight in each of eight classrooms included in this study) were interviewed during a 2- to 3-week period in March 1983. Interviewers were "blind" as to the socialization status (based on the TRC) of subjects, as well as to the classroom teachers' socialization priority status. Thus, interviewer expectations regarding subjects' ability to respond were not likely to influence interviewer behavior at the time of data collection. This was considered especially important given that expectations for behavior so often dictate subject response.

Subjects were assigned to interviewers by classroom. There were several reasons for this. First, this procedure insured that an interviewer would work with an equal number of male and female subjects. Second, within classes interviewees would be treated the most consistently. Third, as two of the interviewers were also

observers in certain classrooms, it was possible to keep from assigning those interviewers classes in which they were well known. This was considered important as subjects interviewed by a familiar adult might have an unfair advantage over others who were not. It was also considered more expedient and less disruptive to assign subjects to interviewers by class. Two interviewers were assigned three classes each. The remaining interviewer was assigned two classrooms.

Interviews were conducted at times which were agreeable to both students and teachers. This means that they did not take place during recess, gym, or other special classes unless the student and teacher(s) involved requested such timing. This was to insure that students did not miss anything they needed to be present for, and so that they did not feel like they were missing out on something special (i.e., gym, music, etc.).

Interviews were conducted in private rooms within the school building, where distractions were as minimal as possible. All interviews were tape-recorded and lasted approximately 30 minutes apiece. A standardized warm-up procedure (see Appendix A) was employed to establish rapport with individual subjects. This was not read to subjects, but all points were covered by the interviewer. The warm-up procedure took place either during the walk from the classroom to the interviewing room or after arriving at the interviewing room.

To begin the interview, subjects were invited to record and hear their voices on tape. This served the purpose of further relaxing the subjects, as well as checking the recording equipment to be sure it was

in working order. Once the interviewer was satisfied that the subject had been made as comfortable as possible, the formal interview began.

The interview consisted of six major sections, sequenced so as to provide for variety in format in order to maintain subjects' interest. The ordering of the four "open-middle" stories (section 4) was randomly determined but was constant across subjects. Two parallel forms for the presentation of hypothetical students (section 5) were used to control for order of presentation effects. Forms were randomly assigned to subjects. Language for all interview items was adjusted to match the sex of the interviewee. In addition, whenever hypothetical or fictitious characters were involved, names were chosen which did not appear on the class roster for a particular subject. Thus it was not possible for any subject to mistakenly assume that a character mentioned in the context of the interview was indeed a member of his or her class.

Students were first asked to list as many classroom rules as they could recall. They were then asked to select the most important rule from the ones they had already listed and to give a rationale for its importance.

In the second section of the interview, subjects were asked to nominate the best workers in their class and then to enumerate relevant characteristics of their first three nominees. If a subject listed himself among the first three nominees, he was asked to supply characteristics for his first four nominees. Students' nominations of themselves and descriptions of personal attributes were not included in

data analyses. This was done as it was felt that some subjects might not realize that they could include themselves or might feel reluctant to do so for a variety of reasons. Also, as it was felt that students might feel more or less at ease discussing themselves, as compared with their peers, eliminating statements about the self seemed a wise thing to do.

In the third section of the interview, subjects were asked to nominate those children in their class who really got along well with all the other kids in class. As in section 2 of the interview, subjects were then asked to enumerate relevant characteristics of their first three (or four) nominees.

The fourth section of the interview consisted of the four "open-middle" stories used to assess means-ends thinking. Subjects were requested to supply the middle portion of the story which was missing for each of the four stories.

In the fifth section of the interview, students were presented with two hypothetical students, one of whom was a really good worker (but who did not get along so well with others) and one of whom got along really well with other kids (but who was not a very good worker). They were asked to select which hypothetical student their teacher would choose to join the class, and which hypothetical student they themselves would choose. Rationales for choices were requested.

The final section of the interview asked subjects to state the worst thing they could do in class and the one thing they could do to

make their teacher the very happiest. Rationales for responses were requested.

Following the conclusion of the interview items, interviewers played back a small portion of the tape for the subject to hear. This was done both as a "reward" for the interviewees and to enable the interviewer to determine that the recording equipment had functioned properly. The subjects were then thanked and escorted to their classrooms.

Teacher Interviews

Teacher interviews took place in June of 1983. The interviews were all conducted by one of the three researchers who participated in student interviewing. The interviews took place either at school or at the teachers' homes. The entire interview process took approximately 2 hours per teacher; approximately 20 to 30 minutes of this time was spent on interview items used in the present study. (See the Teacher Measures section of this chapter for further details regarding teacher interviews.)

Achievement Data

In June of 1983 standardized reading and math test scores were obtained from the Lansing School District Office of Evaluation Services. These scores were those obtained by students on the Stanford Achievement Test (SAT) administered each spring by the school district. Specific scores obtained were those from Spring 1982 and Spring 1983 testing sessions.

Hypotheses

The following hypotheses guided the statistical analyses of data described in the preceding sections:

1. It is thought that children's process knowledge (social-problem-solving ability--SPSA) and their content knowledge (CK) in the socialization domain will predict their level of social competence in the classroom (teacher ratings will be used to determine competence). It is further hypothesized that SPSA will be more predictive than CK with regard to teacher ratings of competence (TRC).

2. It is hypothesized that teacher socialization priority and socialization effectiveness will significantly relate to students' content knowledge (CK) in the socialization domain.

3. It is hypothesized that teacher socialization priority and socialization effectiveness will significantly relate to students' process knowledge (SPSA).

4. It is hypothesized that certain key individual student variables will significantly predict student socialization status when such status is determined by level of social-problem-solving ability (SPSA-TOT). The individual student variables considered include perceived control (Internal, Unknown, and Powerful Others subscale scores), perceived competence (social and cognitive), and content knowledge. Specifically, it is the Unknown source of control which is expected to be most predictive of SPSA-TOT, followed by perceived competence and content knowledge.

5. When "task demands" SPSA and "interpersonal" SPSA are examined separately, it is hypothesized that perceived control will have the greatest predictive power, followed by perceived competence and content knowledge. Different subscale scores on these measures are expected to best predict the two types of social-problem-solving ability. That is, the social subscales on the perceived control, perceived competence, and content knowledge measures will be more predictive of interpersonal SPSA, while the cognitive subscales are expected to predict problem solving in the task-demands domain.

6. Finally, it is hypothesized that problem-solving ability in the "task demands" and "interpersonal" socialization areas will be strongly and positively related.

Data-Analysis Procedures

Student Interview Data: Content Analysis, Coding, and Scoring Procedures

As student interviews constitute the primary data of this investigation, attention is first given to a description of the handling of these data. Sixty-four student interviews were transcribed between March and May 1983. Following transcription, all typescripts were reviewed by the author of this report while listening to the original tapes. This process was considered necessary due to the extremely difficult nature of the transcription process; previous experience with student interview data indicated that much of what is lost in the original transcription process (due to soft children's voices, omission of sighs, pauses, etc.) can be supplied at this time.

Once accurate transcriptions were achieved, content analysis, coding, and scoring procedures began. What follows here is an account of how the student interview data were treated prior to their use in statistical or qualitative analyses. It is a temporal account, sequenced to reflect the actual ordering of steps taken in handling the data. Student interview item numbers are referred to throughout; the reader is referred to Appendix A to view the actual items as stated during the interview process.

Composite rule lists: Classroom level. The first step was to pull from the student interviews information needed at the time of the teacher interviews, which were to be conducted in June 1983. Thus, for each classroom a composite list of rules (given by eight students in response to interview items A-1 and A-3) was generated. This list was to be presented at the time of the teacher interview to the corresponding classroom teacher, who was requested to indicate which of those rules listed was actually presented or stressed with her students. Due to a time press in creating these rule lists prior to the teacher interviews, the author alone determined the list of rules for each individual subject. Prior to the actual coding of rule (and accompanying rational) data, two readers independently identified rule statements and eventually achieved 100% agreement on codables.

"Open-middle" scores: Social-problem-solving ability (SPSA). The Summer of 1983 was spent content analyzing responses to the four "open-middle" stories used to assess means-ends thinking. Coding systems were developed (one for each story), and procedures to be used during

the coding process were detailed and defined. Specific procedures for scoring the open-middle stories followed the specifications presented in the Means-Ends Problem Solving: Stimuli and Scoring Procedures Supplement (Spivack et al., 1981). Subject responses were scored for "means," "obstacles," and "time." Briefly defined, a "mean" is "a discreet step that enables the story protagonist to get closer to the story goal . . . means in a story are sequenced steps" (Spivack et al., 1981, p. 4). An "obstacle" is "an actual or potential interference with goal attainment . . . [which] almost always changes the direction of the plan for goal attainment" (Spivack et al., 1981, p. 9). "Time" is scored "when specific reference to time is used . . . [or] when the protagonist waits for a propitious occasion" (Spivack et al., 1981, pp. 11-12). In sum, a child's total means-ends score "is composed of an accumulation of different means, including the number of specific steps within each mean, the number of obstacles foreseen, and/or the number of time notations expressed" (Platt & Spivack, 1975, p. 111).

The author and one of the two student interviewers did all of the work involved in developing coding systems for, and coding, student responses to the four open-middle stories. Bearing in mind the definitions for "means" and "obstacles," each coder took one-half (32) of the interview transcripts and read interviewees' responses to the four stories for the purpose of generating categories of means and obstacles to be used in the four unique systems developed to code these responses. For each story, a list of "means" and "obstacles" was generated, based on actual student responses. Definitions for coding

categories were developed with samples of codable responses provided to guide the eventual coding of the data. The result was four distinct coding systems, one for each of the four open-middle stories (see Appendix B). There were no subcategories for scoring "time"; a tally was simply made for each reference to time given, following the scoring procedures outlined in Appendix B.

Having developed the four coding systems, 15 transcripts were randomly selected (by use of a random number table) and independently coded by the two coders. The coders then compared notes and refined coding systems based on differences in the first "run" of coding. Interrater agreement was at this point approximately 80%. As it was the intent all along to double code the entire data set of 256 stories, the primary purpose of practice coding was to simply refine systems and agree upon general coding conventions; the exact percentage agreement was less important than if stories were to be only singly coded.

Feeling comfortable with their rate of agreement, the two coders proceeded to independently code the entire data set. Individual coding sheets were developed for this purpose (see Appendix B). In addition to scoring responses on the coding sheet, coders marked the codable statements on their own copies of the transcripts. This was done so that during the resolution process, discussed below, it would be possible to make sure that coders were agreeing, word for word, on the coding of story content.

The actual coding of stories took place over a period of about 2 months. Coders then convened to compare their work and resolve

differences to 100% agreement. The resolution process proceeded in the following manner. One subject's responses (across four stories) were considered at a time. First, coders compared the numbers and letters recorded in each cell of the individual coding sheet. They then double checked to be sure that (for example) an A-2 given by both coders pertained to the identical portion of an interviewee response. As the coding itself involved a two-step process (first, the identification of codable "chunks" of student language, followed by actual coding of those "chunks"), reliabilities (percentage interrater agreement) were figured to reflect both the identification-of-codables and the actual categorizing phases of the coding process. Whenever there was disagreement, either in terms of identifying codables or the categorization of codables, agreement was reached and a final "score" was given. When necessary, a third party served as a tie-breaker.

The resolution process was time consuming and required several meetings. Final reliabilities were figured for each story reflecting the percentage of interrater agreement prior to the resolution process. To calculate reliabilities, the following conservative formula was used:

$$\frac{\text{number of agreements}}{\text{number of agreements} + \text{number of disagreements} + \text{number of additional codes}}$$

where "additional codes" refers to "chunks" of student language coded by one coder but not the other. (Often these "additional codes" are

ignored and are hence not figured into the denominator, thereby inflating the actual percentage agreement.) Reliabilities for the four stories (percentage interrater agreement prior to resolution) were quite high: .81, .91, .91, and .86 for stories 1 through 4, respectively. Ultimately, all student responses were resolved to 100% agreement.

From the individual coding sheet, subjects received three scores each: one for "total" social-problem-solving ability (SPSA-TOT), one for "interpersonal" social-problem-solving ability (SPSA-IP), and one for "task demands" social-problem-solving ability (SPSA-TD). SPSA-TOT was figured by adding the total number of means, obstacles, and time notations scored across all four stories. To figure SPSA-IP, means, obstacles, and time notations for stories 1 and 3 were summed. For SPSA-TD, means, obstacles, and time notations were summed across stories 2 and 4. These three SPSA scores were used as criterion variables in subsequent statistical analyses.

Although stories were coded for content (in terms of means and obstacles), results of this study are not discussed in terms of story content; only the <u>number</u> of means, obstacles, and time notations are considered. It was necessary to code for story content (rather than to simply tally means, obstacles, or time) to be accurate in the resolution process. Actual <u>content</u> analysis of the 256 stories is reserved for the future.

<u>Nominations of "good workers" and "kids who get along well"</u>. Responses to student interview items B-1 and C-1 (where subjects were

asked to list the "good workers" and the "kids who get along really well" in their class) were used to develop proportional scores reflecting the amount of agreement between peers regarding who in their class were the "good workers" or "kids who get along really well." Proportional scores were developed using the procedure reported in Halperin (1976). Using this procedure, a tally is made every time a child names a student also nominated by another classmate. The number of matches is then divided by the total number of nominees given by the child, plus one. (For example, if Child "X" lists John, Mary, Steven, and Lisa as good workers, and all but Lisa are nominated by at least one other classmate, Child "X" receives a proportional score of 3 divided by 5, or .60.) The "plus one" in the denominator serves as a correction factor used to avoid unduly rewarding subjects who nominate very few people, as contrasted with subjects who nominate a greater number. Without this correction factor, a subject (Child "Y") nominating only "John" (who is also nominated by someone else) would receive a score of 1.0, while a subject such as Child "X" (above) would receive a score of only .75. Clearly, Child "X" deserves the higher score, in that s/he is able to "accurately" nominate the greater number of people. Using the correction factor of "plus one," Child "Y's" score becomes .50, as compared to a score of .60 for Child "X," which seems more fair.

For each subject, proportional scores were separately calculated for interview items B-1 and C-1. These proportional scores, ranging from 0.0 to .99, were used as both predictor and criterion variables in

subsequent statistical analyses. As such, they were considered to be "content knowledge" variables, reflecting subjects' abilities to pick up on cues in the environment relating to norms and standards for appropriate behavioral conduct in the classroom.

Characteristics of "good workers" and "kids who get along well". Responses to student interview items B-2 and C-2 (where subjects were asked to explain why their nominees were such good workers, or why they got along so well) were content analyzed, and unique systems were developed for coding. All 64 subjects' responses to items B-2 and C-2 were perused to determine patterns of response suggestive of categories to be used for coding the entire data set. (The specific coding categories for each system are not discussed here, as there are a great number of them. See, instead, Appendix B.) Two researchers, the author and one other student interviewer, were involved in both the development of coding systems and the actual coding of data. The development of the "good workers" system, as well as the coding of relevant student responses, preceded the development and coding of the "kids who get along well" system. Copies of the two systems, along with sample coding sheets, are appended to this report (see Appendix B).

A random sample of 15 transcripts was selected (by use of a random number table) and independently coded by the two coders for the purpose of checking reliabilities (percentage interrater agreement) and refining the coding systems. To determine reliabilities, the following formula was used:

$$\frac{\text{number of agreements}}{\text{number of agreements} + \text{number of disagreements} + \text{number of additional codes}}$$

where "additional codes" refers to "chunks" of student language coded by one coder but not the other. Great care was taken to control for dependencies between coding categories when figuring reliabilities. In other words, when coding decisions were linked (e.g., on the "good workers" system, a code of A-0 mandates a code of B-0), credit was given for only one agreement. Using this conservative way of calculating, reliabilities obtained for the "good workers" and "kids who get along well" systems were .92 and .89, respectively.

Because reliabilities were so high, the remaining 49 transcripts were singly coded by one coder--the student interviewer, not the author of this report. While coding, the coder made note of any questions she had about how to categorize certain responses. When coding for a particular system was completed, the coder met with the author to discuss and resolve uncertainties. As the way in which the coder had categorized uncertainties almost invariably matched the decisions which the author would have made, it was felt that the final coding was extremely accurate.

Originally, characteristics given by a subject for three nominees of each type ("good workers" and "kids who get along well") were coded. The author then condensed the original coding so that subjects received credit only once for each coding category. In other words, if on the

"good workers" system a subject mentioned academic ability ("he's really smart") for all three nominees, s/he received only one "A-2" during condensed coding. This was done as interest centered primarily on how many different things kids knew about what it takes to be well-socialized students in either socialization domain. The frequency with which attributes or characteristics were mentioned by the same subject was not considered important.

The results of coding on the "good workers" and "kids who get along well" systems underwent qualitative analysis to further illuminate children's social cognitions relating to an understanding of classroom norms and standards for appropriate behavioral conduct. These data were not included in the statistical analysis of hypotheses presented earlier in this report.

Coding of "rules," "worst" and "happiest" things, and accompanying rationales. Student responses to the following interview items were coded using an adapted version of the "Socializing Messages" coding system developed by the IRT's Socialization Outcomes research team:

A-1 (list of classroom rules)

A-2 (most important rule)

A-3 (rationale for most important rule)

A-4 (worst thing a kid can do in class)

A-5 (rationale for worst thing)

A-6 (what kid can do to make teacher happiest)

A-7 (rationale for happiest thing)

The "Socializing Messages" system was originally used to code any verbal or nonverbal messages teachers sent which related to classroom standards; these messages, copied down verbatim, are contained in the descriptive narrative accounts of classroom observation sessions collected as part of the larger study. Coding categories included in the original system are: target audience, timing (preactive or reactive), socialization domain (task, interpersonal, procedural), classroom context, student input, instruction about meeting the standard, rule rationales, attributional statements about students' control over outcomes, and predictions about or actual administration of either intrinsic or extrinsic consequences.

The "domain," "rationale," and "extrinsic consequences" categories were revised in a minor fashion and adapted for use in coding student interview data in the present study. Five additional categories were also developed: "target population," "student context," "positive/ negative language," "spontaneous rationale," and "permission seeking."

The author and one other student interviewer who was involved in the development of the original "Socializing Messages" system worked together to modify that system for use in the present study. The modified version is found in Appendix B of this report. As the coding categories are quite numerous, they are not described here. Appendix B contains full descriptions of all coding categories as they were applied to the data.

Prior to actually coding the data, it was necessary to go through the transcripts and identify codable "chunks" of text. This, as well

as all of the actual coding of data, was done by the two people involved in the development of the modified version of the coding system. The procedure was as follows: First, rule statements with accompanying rationales (responses to interview items A-1 through A-3) were identified and bracketed on the transcripts. This was done independently by the two coders, who then compared their work and resolved differences to 100% agreement. The same procedure was then completed for student responses to interview items A-4 through A-7--"worst" and "happiest" things, and accompanying rationales. A random sample of 16 transcripts was then drawn and coded independently by the two coders. A reliability figure was not determined for this sample; rather, the coders used this as a training experience and compared results to aid in the refinement and finalization of the "Rules, Worst and Happiest Things" coding system. With the system finalized and coding conventions agreed upon, a second random sample of 10 transcripts was selected and coded. A reliability figure (percentage interrater agreement) for this sample was calculated to be .90. To determine this figure, the number of agreements was divided by the number of agreements plus disagreements plus additional codes.

At this point the two coders independently completed the coding of responses to interview items A-1 through A-7 for all 64 transcripts. Coding was then compared and disagreements resolved to 100% agreement. When necessary, a third party served as a tie-breaker in the resolution process.

The bulk of the coding for interview items A-1 through A-7 underwent qualitative analysis to illuminate children's social cognitive processes as they relate to an understanding of classroom norms and standards for appropriate behavioral conduct. For this purpose, frequency counts were computed and comparisons made, for example, between the numbers and types of rules and rationales proffered by various subgroups of subjects. Patterns across the sample as a whole were also examined. These data were not included as variables in statistical tests of the hypotheses outlined in this report.

A few, select portions of the coding of student rules and rationales were used to generate "content knowledge" variables considered for inclusion in statistical analyses. In particular, the "domain" category for the "most important rule" (item A-2) and its accompanying rationale (item A-3) were compared with teachers' responses to parallel interview items. The specific procedures used for making such comparisons are described below (see p. 103).

Choice of hypothetical classmate and accompanying rationales. The "Who Is Chosen?" system was developed to code student responses to interview items P-1 through P-4. Here subjects had to choose, from a personal perspective as well as that of the classroom teacher, which of two hypothetical students should become a new class member; they were then asked to provide rationales for those choices. The "Who Is Chosen?" system was developed, and the relevant data coded, by the author and one other student interviewer. Content analysis of

approximately one-half of the data set resulted in the coding categories included on this system (see Appendix B).

Ten transcripts were randomly selected and coded independently by the two coders. Coding was compared and refinements in the system were made; a reliability figure was not calculated at this point. The two coders then independently proceeded to code all 64 student transcripts. Reliability (percentage interrater agreement) across the entire data set was calculated to be .97. As above, this figure was determined by dividing the number of agreements by the number of agreements plus disagreements plus additional codes. All differences in coding were resolved to 100% agreement.

The results of the "Who Is Chosen?" coding underwent qualitative analysis to explore students' social cognition relating to adjustment in the two classroom socialization domains: interpersonal adjustment and adaptation to classroom task demands. These data were not included as variables in statistical analyses relating to the hypotheses presented in this report.

Teacher Interview Data

Relevant data from teacher interviews were coded on two of the systems described earlier. First, the "Rules, Worst and Happiest Things" system (Appendix B) was used to code the following:

1. teachers' first and second most important rules,
2. rationales for #1, above,
3. teachers' descriptions of the worst thing a kid can do in class,

4. teachers' descriptions of the one thing a kid can do to make the teacher the happiest, and
5. rationales for #3 and #4, above.

Second, the "Who Is Chosen?" system was used to code teachers' choices and accompanying rationales regarding which of two hypothetical students they would like to become a new class member: a really good worker or one who gets along really well.

The reliability figures (percentage interrater agreement) on these two systems were so high when applied to student interview data (.90 and .97, respectively) that the teacher interview data were singly coded. The results of this coding were used primarily to aid in the determination of student subjects' "content knowledge" variable scores.

Summary of Content Analysis and Coding Procedures: Student and Teacher Interview Data

A total of eight unique systems were developed to code student and teacher interview data. All eight systems were developed and relevant data coded by the same two white female researchers: the author and one other student interviewer. Reliabilities (percentage interrater agreement) for the systems were quite high, ranging from .81 to .97. All coding discrepancies were resolved to 100% agreement. Table 3 summarizes the eight coding systems used, presenting the name of each system, the data to which it was applied, and the reliability obtained. Copies of all coding systems are found in Appendix B. The order in

which the systems appear in Table 3 reflects the order in which systems were developed and applied to the data.

Table 3

Coding Systems Applied to Student and Teacher Interview Data

Coding System	Relevant Data	Reliability
Open-Middle Stories: Story 1	Student responses to Story 1	.81
Open-Middle Stories: Story 2	Student responses to Story 2	.91
Open-Middle Stories: Story 3	Student responses to Story 3	.91
Open-Middle Stories: Story 4	Student responses to Story 4	.86
Characteristics of Good Workers	Student Interview Item B-2	.92
Characteristics of Kids Who Get Along Well	Student Interview Item C-2	.89
Rules, Worst/Happiest Things	Student Interview Items A-1 through A-7 Teachers' rules, worst/happiest things and rationales	.90
Who Is Chosen?	Student Interview Items P-1 through P-4 Teachers' choice of hypothetical student and rationales	.97

The Creation of Content Knowledge Variable Scores: Comparison of Student and Teacher Interview Data

Four "content knowledge" variable scores were created for all student subjects by comparing relevant student and teacher interview data: RPROP, MATCHA, MAJMCH, and MINMCH. Each of these variables is described below.

RPROP. RPROP measures how well a student's perception of classroom rules matches that of his/her classroom teacher. To determine RPROP, teachers were presented with a composite list of rules generated by their students and were asked to indicate which of those were actually presented or stressed with students. Student rule statements, independently identified by two readers, were then compared with teacher responses to the composite rule list; each rule statement was classified as a "match" or "mismatch," depending on whether or not it qualified as a teacher rule. Each student then received a proportional score figured by dividing the number of "matches" by the number of "matches" plus "mismatches." The proportional score reflects rule-agreement between student and teacher. This variable is considered to be a "content knowledge" variable in subsequent analyses.

MATCHA, MAJMCH, and MINMCH. Three content knowledge variables were created to assess student-teacher agreement regarding the most important classroom rule: MATCHA, MAJMCH, and MINMCH. Each of these variables measured essentially the same thing. The reason for creating three separate measures was that it was not immediately apparent just what type of assessment would work best. Ultimately, the variable

which correlated most strongly with outcome measures of interest was selected for inclusion in subsequent analyses (MAJMCH).

To determine MATCHA ratings, which ranged from a low of "1" to a high of "3," three independent readers compared students' most important rules and accompanying rationale statements with those of the corresponding classroom teacher. If both the content of a student's most important rule and its accompanying rationale were considered to "match" that of his/her teacher, a score of "3" was given. If either the rule content or the rationale given by the student matched that of his/her teacher, a score of "2" was obtained. If neither the rule content nor the rationale coincided with the classroom teacher's statements, a score of "1" was obtained.

MAJMCH scores also involved a comparison of the most important rules generated by students and teachers. Here, however, general domain (Task, Interpersonal, or Procedural) was the issue. Specifically, if there was a "match" between the rule domain of the student and that of the teacher for either rule s/he cited, a score of "1" was awarded. If student and teacher domains did not match, a score of "0" was given.

MINMCH scores were determined in much the same way as MAJMCH scores, with the exception being that not only the student's general rule domain (Task, Interpersonal, or Procedural), but also the specific subdomain (e.g., A3), had to match with the classroom teacher's rule statement in order to obtain a score of "1." Otherwise, a score of "0" was given.

In sum, the four content knowledge variables outlined above were developed to assess the relationship between student and teacher perceptions of norms and standards for behavioral conduct in the classroom. Of these, only MAJMCH was used in subsequent analyses, as it was this variable which correlated most strongly with outcome variables of interest.

Statistical Analyses of Hypotheses

A variety of statistical procedures, including correlational analysis, multiple regression, and analysis of variance (ANOVA) were used to examine the six hypotheses outlined earlier. Briefly, Hypotheses 1 and 6 were examined through correlational analyses; Hypotheses 2 and 3 were addressed using the ANOVA model discussed below; and multiple regression analyses were used to test the remaining hypotheses, 4 and 5.

Correlations between all relevant variables were run as an initial step to determine if, overall, it was feasible to further examine the hypotheses using regression and ANOVA techniques. It was felt that if at least minimal support for posited relationships was not evident through simple correlational analysis, it would be fruitless to do more sophisticated analyses. Using this criterion, examination of Hypotheses 1 and 6 did not proceed beyond correlational analysis. Where it seemed appropriate (e.g., for Hypotheses 2 through 5), further analyses were conducted.

Multiple regression, a general statistical technique used to examine the relationship between a dependent (criterion) variable and a

set of independent (predictor) variables, was considered the appropriate statistical tool to employ in the examination of Hypotheses 4 and 5. These hypotheses explore relationships between children's social-problem-solving ability (criterion variable) and a variety of predictor variables including perceived control, perceived competence, and content knowledge. There are several different types of multiple regression procedures which could be used to examine hypotheses of this sort. In the present investigation, a forward (stepwise) inclusion procedure was employed (Kim & Kohout, 1975); here, the order of inclusion of independent variables in the analysis is determined by the respective contribution each makes to explained variance. This regression program was taken from the Statistical Package for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). It was considered to be the most straightforward and adequate means to address the hypotheses in question. Further information regarding this procedure is found in Kerlinger and Pedhazur (1973).

Analysis of variance techniques were employed to explore relationships between certain teacher--or classroom level--variables and the content and process knowledge evidenced by students in the socialization domain. The particular ANOVA model used has been discussed by Hopkins (1982, Model C, p. 8), who concludes, "the common recommendation to use group means when there may be nonindependence among observational units is unnecessary, unduly restrictive, impoverishes the analysis, and limits the questions that can be addressed in a study" (p. 5). He suggests the alternative model used in the present

investigation which allows for comparisons not only between groups of teachers (classrooms), but also for comparisons between classes within those groups. The reader is referred to Hopkins (1982) for further discussion of the ANOVA model employed.

Thus, correlation, regression, and analysis of variance were used to examine hypotheses in this investigation. All statistical analyses were conducted at Michigan State University's Computer Center, using SPSS programs. In the following chapters of this report, results of these analyses will be presented and discussed.

CHAPTER 4

RESULTS

The aim of this investigation was to add to the knowledge base concerning classroom socialization processes. To do this, relationships between a variety of classroom and student-level variables relevant to the process of socialization were examined. Student interviews constituted the primary data of the investigation. In addition, teacher interviews, teacher questionnaire responses, and student test scores contributed to the data base.

Results of Quantitative Analyses

Introduction

A series of six hypotheses were advanced to explore relationships of interest. Statistical analyses (correlations, multiple regression, and analysis of variance techniques) were used to determine if there was support for these hypotheses. Qualitative analyses of selected portions of the student interview data were also conducted to further explicate the processes involved in classroom socialization into the student role. Preliminary analyses revealed no appreciable sex differences relating to any of the outcome variables of interest; thus, data were pooled for males and females in all subsequent analyses.

Results are reported first for the six stated hypotheses of the study. This is followed by a presentation of the results of qualitative analyses. Discussion of the overall study is saved for Chapter 5.

Hypothesis 1

> Children's process knowledge (social-problem-solving ability) and content knowledge in the socialization domain will predict teachers' ratings of social competence in the classroom. Social-problem-solving ability will be more predictive than content knowledge in this regard.

This hypothesis was not supported by the results of this investigation. Initial correlational analyses revealed that, of the three process and six content knowledge variables assessed, not one was found to be significantly related to teachers' ratings of social competence (TRC-TOT). The three process knowledge variables included were (a) overall social-problem solving ability (SPSA-TOT), (b) interpersonal social-problem-solving ability (SPSA-IP), and (c) task demands social-problem-solving ability (SPSA-TD). Included in the six content knowledge variables were proportional scores derived from "good worker" (GW-PROP) and "kids who get along well" nominations (GA-PROP), and a proportional score relating to student-teacher agreement on classroom rules (R-PROP); also included were three other scores reflecting student-teacher agreement regarding the most important classroom rule (MATCHA, MAJMCH, and MINMCH). The correlations obtained between the criterion variable (TRC-TOT) and the nine predictor variables (i.e., process and content variables) are shown in Table 4.

As initial correlational analyses indicated that the hypothesized relationships between teacher ratings of social competence, children's

process knowledge, and children's content knowledge were insignificant, no further analyses were performed. Possible explanations for the lack of support found for this hypothesis are presented in Chapter 5.

Table 4

Correlations Between Teacher Ratings of Social Competence and Children's Process and Content Knowledge Scores

	Process Knowledge		
	SPSA-TOT	SPSA-IP	SPSA-TD
TRC-TOT	-.08	-.12	-.02

	Content Knowledge					
	GW-PROP	GA-PROP	R-PROP	MATCHA	MAJMCH	MINMCH
TRC-TOT	-.23	-.05	.10	-.13	-.12	-.11

Hypothesis 2

> Teacher socialization priority and socialization effectiveness will predict students' content knowledge in the interpersonal and task demands socialization domains (GW-PROP and GA-PROP, dependent variables).

To examine this hypothesis, ANOVA techniques were employed. Results for the dependent variable GW-PROP (proportional score for the nomination of good workers) are presented first, followed by those obtained in relation to GA-PROP (proportional score for the nomination of kids who get along well).

GW-PROP. Three distinct relationships were examined. In each ANOVA, the good worker nomination score was the dependent variable. The independent variables were (a) teacher socialization priority (TP), (b) socialization outcomes effectiveness in the task domain (TD-EFF), and (c) socialization outcomes effectiveness in the interpersonal domain (IP-EFF).

The results of the ANOVA performed to examine the first relationship indicated there was no significant relationship between teacher socialization priority (i.e., interpersonal versus task demands focus) and knowledge of who in the class is a good worker (F [1,6] = .78, $p < .41$). The test for teachers within teacher priority (error 1) was significant (F [6,56] = 2.71, $p < .02$), suggesting that, for the present sample, there were classroom-level effects associated with students' ability to identify good workers, although these were not systematically related to teacher socialization priority.

The results of the ANOVA performed to examine the second relationship indicated there was no significant relationship between growth in task-related outcome measures and knowledge of who the good workers are (F [1,6] = .49, $p < .50$). The test for teachers within levels of task demands effectiveness (i.e., high/low) was significant (F [6,56] = 2.83, $p < .01$).

Finally, for the third relationship, the ANOVA yielded no significant main effect between growth in interpersonal socialization outcomes measures (i.e., high and low levels) and knowledge of who the good workers are (F [1,6] = .85, $p < .39$). Consistent with the results

obtained in the analyses of the first two relationships, the test for teachers within interpersonal effectiveness levels was significant (F [6,56] = 2.68, $p < .02$).

In sum, although classroom-level differences were found in students' ability to identify good workers, these did not relate to any of the three ways used to group classrooms in the present study.

As was noted earlier in this report, there was some concern about the IP-EFF grouping measure due to the fact that of the four classrooms included in the "high" effectiveness group, two had slightly negative residuals; thus, only low to average growth on the interpersonal effectiveness (IP-EFF) factor scale occurred in these classrooms. Therefore, it was decided to conduct an ANOVA using only the extremes in IP-EFF, with the two "highest" IP-EFF classes compared to the two "lowest." Using this approach, IP-EFF emerged as a significant main effect (F [1,2] = 33.17, $p < .02$); surprisingly, students in "low" IP-EFF classes evidenced significantly greater agreement about good workers than did those in "high" IP-EFF classes. In other words, in classrooms where less-than-expected growth occurred in the interpersonal domain, students appeared to be more "in-the-know" regarding who the good workers are than in classrooms where greater-than-expected interpersonal growth occurred. It is not at all clear why this should be the case. It seems nonsensical that students in classrooms characterized by interpersonal "ineffectiveness" should be more proficient at social problem solving than those in classrooms where considerable interpersonal growth occurred. As will be discussed in Chapter 5 (see

limitations section), certain problems with the interpersonal effectiveness (IP-EFF) measure led the author to conclude that no meaningfully significant conclusions can be drawn regarding the relationship between this measure and students' task-related content knowledge, even though the main effect (using extreme classes only) was statistically significant.

The *F*-statistic obtained for the teachers within IP-EFF extreme groups (error 1) was not significant (F [2,28] = .27, $p < .76$).

In sum, it appears that teacher socialization priority and growth in the task demands socialization domain are <u>not</u> predictive of GW-PROP, which is one of the key content knowledge variables in the task demands domain. There did appear to be classroom-level effects associated with the good worker variable, but they were not systematically related to either teacher priority or TD-EFF ways of grouping. When extremes in IP-EFF were used to examine the relationship between growth in the interpersonal socialization domain and GW-PROP, a significant main effect emerged, suggesting that students in "low" IP-EFF classrooms were more knowledgeable than those in "high" IP-EFF classrooms with regard to who the good workers are. This puzzling result is considered to be uninterpretable in any meaningfully significant fashion. Thus, it must be said that none of the teacher measures examined emerges as a significant influence on children's content knowledge in the task demands domain. Table 5 presents the *F*-statistics, degrees of freedom, and significance levels for the ANOVAs performed to examine relationships between the three teacher variables and GW-PROP.

Table 5

Results of Tests for Relationships Between Content Knowledge in the Task Demands Socialization Domain and Teacher Socialization Priority, Task Demands Effectiveness, and Interpersonal Effectiveness

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between TP (independent variable) and GW-PROP	Test for TP main effect	1,6	.78	$p < .41$
	Test for teachers within TP	6,56	2.71	$p < .02$*
2: The relationship between TD-EFF (independent variable) and GW-PROP	Test for TD-EFF main effect	1,6	.49	$p < .50$
	Test for teachers within TD-EFF	6,56	2.83	$p < .01$*
3: The relationship between IP-EFF (independent variable) and GW-PROP (total sample)	Test for IP-EFF main effect	1,6	.85	$p < .39$
	Test for teachers within IP-EFF	6,56	2.68	$p < .02$*
4: The relationship between IP-EFF (independent variable) and GW-PROP (extreme classes only)	Test for IP-EFF main effect	1,2	33.17	$p < .02$*
	Test for teachers within IP-EFF	2,28	.27	$p < .76$

Note: GW-PROP = proportional score for the nomination of good workers
TP = teacher socialization priority (interpersonal versus task demands focus)
TD-EFF = growth in task-related socialization outcomes measures
IP-EFF = growth in interpersonal socialization outcomes measures

GA-PROP. Three distinct relationships were examined--the same as for GW-PROP above, with the exception that the dependent variable in all three ANOVAs was GA-PROP (proportional score for the nomination of kids who get along well) rather than GW-PROP.

The results of the ANOVA performed to examine the relationship between teacher priority and GA-PROP indicated there was no significant relationship between teacher socialization priority and knowledge of who gets along really well in class (F [1,6] = .43, p < .53). The F-statistic obtained for the test of teachers within teacher priority (error 1) was also nonsignificant (F [6,56] = .79, p < .57).

A significant F-statistic was obtained for the main effect in the ANOVA performed to assess the relationship between growth in task-related socialization outcomes measures (TD-EFF) and the ability to identify kids who get along well in class (GA-PROP) (F [1,6] = 8.35, p < .02); students in the "high" TD-EFF classrooms did significantly better in this regard than those in "low" TD-EFF classrooms. Thus, in classrooms where greater-than-expected growth occurred in the task demands domain, there was more agreement regarding who gets along well with others. There was less agreement in classes where less-than-expected growth on the TD-EFF factor occurred. In other words, students in the "high" TD-EFF classrooms evidenced more content knowledge in this interpersonal area than students in "low" TD-EFF classrooms. It is not clear why this result was found. A possible explanation will be presented in Chapter 5. Finally, it should be added that the test

for teachers within TD-EFF (error 1) was not significant (F [6,56] = .35, p < .90).

A test of the relationship between growth in the interpersonal socialization domain (IP-EFF) and the ability to identify children who get along well with others in school (GA-PROP) yielded a nonsignificant F-statistic (F [1,6] = .54, p < .49). Thus, there was no greater consensus about who gets along well in classrooms where students make greater-than-expected "progress" in the interpersonal domain compared with classrooms where less-than-expected interpersonal growth occurred. Consistent with results above, the test for teachers within IP-EFF (error 1) was nonsignificant (F [6,56] = .78, p < .58).

Again, due to concern over the inclusion of two classrooms with slightly negative residuals in the "high" IP-EFF group, an ANOVA was performed using only the extremes in IP-EFF to more accurately assess the relationship between growth in the interpersonal domain and GA-PROP. Nonsignificant results were obtained for both the main effect (F [1,2] = 3.10, p < .22) and the test for teachers within IP-EFF (F [2,28] = .40, p < .66).

To summarize, analyses discussed above indicate that neither teacher socialization priority nor growth on the interpersonal factor scale is related to students' content knowledge in the interpersonal domain; however, the task domain growth measure did appear to play a role in this regard. The differential ability of students in "high" versus "low" TD-EFF groups to accurately identify kids who get along well in class transcends differences at the classroom level within

groups. Further discussion of this result is presented in Chapter 5. Table 6 presents the F-statistics, degrees of freedom, and significance levels for the ANOVAs performed to examine these relationships.

Hypothesis 3

> Teacher socialization priority and socialization effectiveness will predict students' social-problem-solving ability, or process knowledge both across and within socialization domains (SPSA-TOT, SPSA-IP, and SPSA-TD, criterion variables).

ANOVA techniques were used to examine this hypothesis. Nine distinct relationships were examined, with the overall purpose of exploring the contribution of various teacher or classroom-level variables to children's process knowledge, or social-problem-solving ability in the socialization domain. The following variables were involved in the examination of these relationships:

1. Teacher socialization priority (TP): interpersonal versus task demands focus on socialization outcomes in the classroom.
2. Task demands effectiveness (TD-EFF): growth in task-related socialization outcomes measures, determined at the classroom level.
3. Interpersonal effectiveness (IP-EFF): growth in the interpersonal socialization domain, determined at the classroom level.
4. Total social-problem-solving ability (SPSA-TOT): social-problem-solving score achieved across all four open-middle stories.

Table 6

Results of Tests for Relationships Between Content Knowledge in the Interpersonal Socialization Domain and Teacher Socialization Priority, Task Demands Effectiveness, and Interpersonal Effectiveness

	Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1:	The relationship between TP (independent variable) and GA-PROP	Test for TP main effect	1,6	.43	$p < .53$
		Test for teachers within TP	6,56	.79	$p < .57$
2:	The relationship between TD-EFF (independent variable) and GA-PROP	Test for TD-EFF main effect	1,6	8.35	$p < .02$*
		Test for teachers within TD-EFF	6,56	.35	$p < .90$
3:	The relationship between IP-EFF (independent variable) and GA-PROP (total sample)	Test for IP-EFF main effect	1,6	.54	$p < .49$
		Test for teachers within IP-EFF	6,56	.78	$p < .58$
4:	The relationship between IP-EFF (independent variable) and GA-PROP (extreme classes only)	Test for IP-EFF main effect	1,2	3.10	$p < .22$
		Test for teachers within IP-EFF	2,28	.40	$p < .66$

Note: GA-PROP = proportional score for the nomination of kids who get along well
TP = teacher socialization priority (interpersonal versus task demands focus)
TD-EFF = growth in task-related socialization outcomes measures
IP-EFF = growth in interpersonal socialization outcomes measures

5. Interpersonal social-problem-solving ability (SPSA-IP): social-problem-solving score achieved across the two interpersonal open-middle stories, 1 and 3.
6. Task demands social-problem-solving ability (SPSA-TD): social-problem-solving score achieved across two task-related open-middle stories, 2 and 4.

Variables 1 through 3 (above) were independent variables in the analyses of variance; the three problem-solving scores were the dependent variables in each of the separate analyses. Results are presented in relation to the three independent variables, with teacher socialization priority being first, followed by task demands effectiveness and interpersonal effectiveness.

The relationship between teacher socialization priority and children's social-problem-solving ability. No significant main effects were found for this set of relationships, indicating that teachers' socialization priority (interpersonal versus task demands focus) is not directly linked to children's social-problem-solving ability either across or within the two socialization domains. The *F*-statistics obtained for the tests of differences between teachers within teacher socialization priority were also nonsignificant for all three dependent variables (SPSA-TOT, SPSA-IP, and SPSA-TD), suggesting that overall there were no significant classroom-level differences in social-problem-solving ability for the present sample. Table 7 presents the *F*-statistics, degrees of freedom, and significance levels for the tests

Table 7

Results of Tests for Relationships Between Teacher Socialization Priority and Children's Social-Problem-Solving Ability

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between TP (independent variable) and SPSA-TOT	Test for TP main effect	1,6	1.58	$p < .25$
	Test for teachers within TP	6,56	1.72	$p < .13$
2: The relationship between TP (independent variable) and SPSA-IP	Test for TP main effect	1,6	.60	$p < .47$
	Test for teachers within TP	6,56	2.15	$p < .06$
3: The relationship between TP (independent variable) and SPSA-TD	Test for TP main effect	1,6	3.69	$p < .10$
	Test for teachers within TP	6,56	.91	$p < .50$

Note: TP = teacher socialization priority (interpersonal versus task demands focus)
SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains)
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

of relationships between teacher socialization priority and social-problem-solving ability.

The relationship between growth in the task demands socialization domain (TD-EFF) and children's social-problem-solving ability. No significant main effects were found for this set of three relationships, indicating that growth in task-related socialization outcome measures at the classroom level (TD-EFF) is not systematically related to children's social-problem-solving ability across or within the interpersonal and task demands socialization domains. Regarding the tests for teachers within TD-EFF, a significant F-statistic was obtained for the interpersonal social-problem-solving ability criterion variable (F [6,56] = 2.33, $p < .04$). This result suggests possible classroom-level differences in social-problem-solving ability which are not related to growth in the task demands socialization domain. Support for the classroom-level effect is not strong, however, as tests for teachers within teacher socialization priority (TP) and teachers within IP-EFF (growth in the interpersonal socialization domain) were nonsignificant. The results of the test for relationships between TD-EFF and social-problem-solving ability are shown in Table 8.

The relationship between growth in the interpersonal socialization domain (IP-EFF) and children's social-problem-solving ability. Significant main effects were found for the relationships between growth in the interpersonal domain (IP-EFF, independent variable) and two of the social-problem-solving ability measures: overall social-problem-solving ability and task demands social-problem-solving ability

Table 8

Results of Tests for Relationships Between Task Demands Effectiveness and Children's Social-Problem-Solving Ability

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between TD-EFF (independent variable) and SPSA-TOT	Test for TD-EFF main effect	1,6	.22	$p < .66$
	Test for teachers within TD-EFF	6,56	2.09	$p < .07$
2: The relationship between TD-EFF (independent variable) and SPSA-IP	Test for TD-EFF main effect	1,6	.09	$p < .77$
	Test for teachers within TD-EFF	6,56	2.33	$p < .04$*
3: The relationship between TD-EFF (independent variable) and SPSA-TD	Test for TD-EFF main effect	1,6	.41	$p < .55$
	Test for teachers within TD-EFF	6,56	1.37	$p < .24$

Note: TD-EFF = growth in task-related socialization outcomes measures
SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains)
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

(SPSA-TOT and SPSA-TD, dependent variables). The relationship between IP-EFF and interpersonal social-problem-solving ability (SPSA-IP, criterion variable) was marginally significant. For all three relationships, children in the low IP-EFF group performed better on the social-problem-solving measures than did children in the high IP-EFF classes. The tests for teachers within IP-EFF were all nonsignificant. Table 9 presents the F-statistics, degrees of freedom, and significance levels for the tests of these relationships.

Taken together, these results suggest that children's social-problem-solving ability is significantly and negatively related to growth, again measured at the classroom level, in the interpersonal socialization domain. In other words, children in classrooms where less-than-expected gains were evidenced in the interpersonal socialization domain appeared to be better social problem solvers than those in classrooms where greater-than-expected growth in the interpersonal socialization domain occurred. Interpretation of these findings is extremely difficult. Why, in classrooms evidencing interpersonal "ineffectiveness"--less-than-expected interpersonal growth--should children perform better on measures of social-problem-solving ability than their counterparts in classrooms where greater-than-expected interpersonal gains were made? Clearly, one group of classrooms was performing better than the other in terms of social-problem-solving ability, but was it possible that this differential performance was due to something other than the IP-EFF measure used to group classrooms? Perhaps there is some other explanatory factor, something else the low

Table 9

Results of Tests for Relationships Between Interpersonal Effectiveness and Children's Social-Problem-Solving Ability

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between IP-EFF (independent variable) and SPSA-TOT	Test for IP-EFF main effect	1,6	5.79	$p < .05$*
	Test for teachers within IP-EFF	6,56	1.10	$p < .37$
2: The relationship between IP-EFF (independent variable) and SPSA-IP	Test for IP-EFF main effect	1,6	4.56	$p < .08$
	Test for teachers within IP-EFF	6,56	1.34	$p < .25$
3: The relationship between IP-EFF (independent variable) and SPSA-TD	Test for IP-EFF main effect	1,6	5.80	$p < .05$*
	Test for teachers within IP-EFF	6,56	.74	$p < .62$

Note: IP-EFF = growth in interpersonal socialization outcomes measures
SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

IP-EFF classrooms shared in common that might contribute to their superior performance on the social-problem-solving measures. To make sense of this, further analyses were performed.

First, due to concern over the inclusion of two classrooms with slightly negative residuals in the high IP-EFF group, a series of ANOVAs were performed using only the extremes in IP-EFF. It was thought that if IP-EFF was indeed legitimately related to children's social-problem-solving ability, tests for main effects should yield significant F-statistics and should, in fact, have higher significance levels than the results obtained using the entire sample. The results of the tests for relationships between IP-EFF and social-problem-solving ability using only the extremes in IP-EFF are shown in Table 10. None of the tests for main effects was significant; the tests for teachers within IP-EFF were also nonsignificant. These results suggested that growth in the interpersonal socialization domain (IP-EFF) was not predictive of children's social-problem-solving ability and that some other explanatory factor must be involved.

At this point, an examination of the means obtained by all eight classrooms on the three social-problem-solving measures indicated that the means for classroom 2 (see Table 11) were extremely low when compared to means for the other seven classrooms. Table 11 presents the means obtained for SPSA-TOT, SPSA-IP, and SPSA-TD.

Table 10

Results of Tests for Relationships Between Interpersonal Effectiveness using only the extremes in IP-EFF (Classrooms 2, 4, 6, and 8) and Children's Social-Problem-Solving Ability

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between IP-EFF (independent variable) and SPSA-TOT	Test for IP-EFF main effect	1,2	6.05	$p < .13$
	Test for teachers within IP-EFF	2,28	1.37	$p < .27$
2: The relationship between IP-EFF (independent variable) and SPSA-IP	Test for IP-EFF main effect	1,2	6.88	$p < .12$
	Test for teachers within IP-EFF	2,28	1.35	$p < .28$
3: The relationship between IP-EFF (independent variable) and SPSA-TD	Test for IP-EFF main effect	1,2	4.80	$p < .16$
	Test for teachers within IP-EFF	2,28	1.01	$p < .38$

Note: IP-EFF = growth in interpersonal socialization outcomes measures
SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains)
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

Table 11

Classroom Means Obtained on Three Measures of Children's Social-Problem-Solving Ability: SPSA-TOT, SPSA-IP, and SPSA-TD

Classroom	SPSA-TOT	SPSA-IP	SPSA-TD
1	10.75	6.13	4.63
2	4.38	2.13	2.25
3	10.88	5.38	5.50
4	10.88	6.00	4.88
5	10.75	6.38	4.38
6	12.88	6.63	6.25
7	8.25	4.38	3.88
8	8.38	4.38	4.00

Note: SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains)
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

As classroom 2 was in the high IP-EFF group, it was thought that the extremely low social-problem-solving means obtained in this one classroom might possibly account for results suggesting that children in low IP-EFF classrooms were significantly better social problem solvers than children in high IP-EFF classrooms. To explore this possibility, a series of ANOVAs were performed having eliminated classroom 2 from the high IP-EFF group, and randomly eliminating one classroom (number 5) from the low IP-EFF group. The results of these ANOVAs are presented in Table 12. The only significant F-statistic obtained was for the relationship between growth in the interpersonal socialization domain (IP-EFF) and task demands social problem solving

Table 12

Results of Tests for Relationships Between Interpersonal Effectiveness Using Only Six Classrooms (1, 3, 4, 6, 7, and 8) and Children's Social-Problem-Solving Ability

Relationship	Test	Degrees of Freedom	F-Statistic	Significance Level
1: The relationship between IP-EFF (independent variable) and SPSA-TOT	Test for IP-EFF main effect	1,4	5.28	$p < .08$
	Test for teachers within IP-EFF	4,42	.40	$p < .80$
2: The relationship between IP-EFF (independent variable) and SPSA-IP	Test for IP-EFF main effect	1,4	2.31	$p < .20$
	Test for teachers within IP-EFF	4,42	.60	$p < .66$
3: The relationship between IP-EFF (independent variable) and SPSA-TD	Test for IP-EFF main effect	1,4	8.93	$p < .04$*
	Test for teachers within IP-EFF	4,42	.23	$p < .92$

Note: IP-EFF = growth in interpersonal socialization outcomes measures
SPSA-TOT = social-problem-solving ability (across interpersonal and task demands socialization domains)
SPSA-IP = social-problem-solving ability (interpersonal socialization domain)
SPSA-TD = social-problem-solving ability (task demands socialization domain)

(SPSA-TD), with children in low IP-EFF classrooms being better social problem solvers than those in high IP-EFF classrooms (F [1,4] = 8.93, p < .04). The test for the main effect of the relationship between IP-EFF and overall social-problem-solving ability (SPSA-TOT) was marginally significant (F [1,4] = 5.28, p < .08). These results again suggest that some factor confounded with IP_EFF may be contributing to the differential social-problem-solving ability found in the two groups of classrooms.

To summarize, the analyses thus far suggested there were significant differences between groups of classrooms in social-problem-solving ability, but that these differences probably could not be attributed to the IP-EFF grouping mechanism. If IP-EFF was truly an explanatory factor relating to social-problem-solving ability, the significant main effects found when using the entire sample of eight classrooms should have held up, or been even stronger, when the ANOVAs using only extreme classrooms were performed. As these relationships did not hold, it appeared that some other factor must be confounded with the IP-EFF grouping mechanism to produce significant main effects.

To explain the differences in social-problem-solving ability between the two groups of classrooms, it was necessary to determine what else was known about these classrooms that might have some bearing on the matter. As has been emphasized earlier, all eight classrooms were part of a larger sample of classrooms participating in the Institute for Research on Teaching's Socialization Outcomes project. As part of the Socialization Outcomes project, teachers in these

classes had responded in the Spring of 1981 to Deci et al.'s (1981) Problems in Schools Questionnaire: A Measure of Adults' Orientations Toward Autonomy Versus Control with Children. The Deci et al. scale consists of eight vignettes, each of which depicts a typical school problem. For each vignette, respondents are asked to rate, on a scale of 1 to 7, each of four available ways for dealing with the presented problem. Each of the four alternatives represents a point on a continuum from highly controlling to highly autonomous. A total autonomy score is derived for each respondent based on his/her responses to all 32 items. This score is taken to reflect the extent to which a respondent is control-oriented versus autonomy-granting in his/her communications with children. It was thought that teachers' scores on the Deci et al. measure might possibly shed some light on the apparent differences found between groups of classrooms in social-problem-solving ability. If a teacher's control orientation as assessed by the Deci et al. scale can be taken as an indication of actual classroom structure, perhaps this could explain, at least in part, children's differential performance on the social-problem-solving measures employed in this study. Deci et al.'s (1981) research supports the contention that teacher control orientation affects teacher behavior, which subsequently has impact upon student outcomes in the classroom. Further support for the link between teacher thought and teacher behavior in the classroom is found in Halperin (1976), who examined relationships between teacher goal orientation, classroom structure, and a

variety of student outcomes such as student perceptions of school, feelings about school, and attentiveness.

A look at teachers' scores on the Deci et al. measure indicated that control orientation was, in fact, totally confounded with the interpersonal effectiveness (IP-EFF) grouping mechanism. The four teachers who were most autonomy-granting in their responses to the Deci et al. questionnaire were all in the high IP-EFF group; those with the lowest total autonomy scores (indicating a more controlling orientation) were all located within the low IP-EFF group. Table 13 provides the total-autonomy scores achieved on the Deci et al. scale as well as IP-EFF group membership (high versus low) for all eight classrooms.

Table 13

Teachers' Total Autonomy Scores[a] in Relation to Group Membership as Determined by the Interpersonal Effectiveness (IP-EFF) Grouping Mechanism

Classroom	Total Autonomy Score	IP-EFF Group
2	13.00	High
1	8.63	High
7	7.00	High
8	4.38	High
3	3.00	Low
6	2.86	Low
4	1.25	Low
5	1.25	Low

[a]Total autonomy score obtained on Deci et al.'s (1981) Problems in Schools Questionnaire. The higher the total autonomy score, the less controlling the respondent's orientation toward interactions with children.

Before proceeding with a discussion of the results, it is important to characterize the overall sample in terms of their control orientation. Scores on the Deci et al. (1981) measure can, in theory, range from a low of -18 (highly controlling) to a high of +18 (high in autonomy-granting). In the present study, teachers were categorized as either higher or lower in control orientation. Means obtained on the Deci et al. measure for these two groups were 2.09 and 8.25, respectively. Thus, the teacher sample in this study consisted of teachers who can best be termed "moderately controlling" and "moderately to highly autonomy-granting" in their interactions with students.

One might speculate that the results obtained for the relationships between growth in the interpersonal domain (IP-EFF) and the three measures of social-problem-solving ability (SPSA-TOT, SPSA-IP, SPSA-TD) reflect to some extent the effect of classroom structure, or the degree to which teachers are controlling versus autonomy-granting in their interactions with students. Looking at it in this way, it appears that children in more controlling or more highly structured classroom climates may be better social problem solvers (SPSA-TOT and SPSA-TD) than children in less structured, more autonomy-granting atmospheres. Some support for this notion can be found in the literature that suggests that learning outcomes are enhanced by higher levels of teacher structure. Brophy and Good (1984), in their review chapter on relationships between teacher behavior and student achievement, presented numerous studies which suggest that achievement is maximized by higher levels of teacher structuring (e.g., Dunkin, 1978; Smith & Sanders, 1981; Solomon

& Kendall, 1979). It seems reasonable to suggest that children's social-problem-solving ability might be similarly enhanced by teachers' structuring behaviors, particularly as it is differences in task demands problem solving which apparently play the key role in the analyses presented above.

The intent here is not to state that it is teachers' control orientation that accounts for increases in children's social-problem-solving ability. There are too many unknowns; a major one, for example, is the extent to which teachers' responses to the Deci et al. measure correspond with actual teacher behavior in the classroom. However, if classroom structure is related to teachers' control orientation, as assessed by the Deci et al. measure, this hypothesis appears to provide the most plausible explanation for differences which were obtained in children's social-problem-solving ability. Further discussion of this point is included in Chapter 5 of this report.

Summary. Briefly, Hypothesis 3 was not supported by the results of this investigation. Neither teacher socialization priority (TP) nor growth in task-related socialization outcomes was significantly related to children's social-problem-solving ability. While some significant main effects were obtained for relationships between growth in the interpersonal domain and social-problem-solving ability, subsequent analyses indicated that the interpersonal effectiveness grouping mechanism was not a likely explanatory factor in children's social-problem-solving ability. As it turned out, the interpersonal effectiveness measure was totally confounded with teachers' control orientation, as

measured by Deci et al.'s (1981) Problems in Schools Questionnaire. The differences obtained in children's social-problem-solving ability thus are more likely related to differences in classroom structure (moderately controlling versus moderately to highly autonomy-granting) than to differential growth in the interpersonal socialization domain, particularly as it was the low IP-EFF group that performed better on measures of social-problem-solving ability.

Hypothesis 4

> Certain individual student variables (perceived control, perceived competence, and content knowledge in the socialization domain) will predict children's social-problem-solving ability across the interpersonal and task demands socialization domains (SPSA-TOT, dependent variable). Of these, the "unknown" source of control is expected to be most predictive.

Forward stepwise multiple regression procedures were used to examine the above hypothesis (see Chapter 3, pp. 105-107, for discussion of this procedure and the rationale for its use in the present study). As originally conceived, a total of ten independent variables were possible candidates for inclusion in the analysis: three perceived control subscale scores ("internal," "powerful others," and "unknown" sources), perceived competence across the cognitive and social domains, four content knowledge variables reflecting teacher-student agreement regarding classroom norms and standards (RPROP, MATCHA, MAJMCH, and MINMCH), and two proportional scores relating to knowledge of who the well-socialized students are in both the interpersonal and task demands socialization domains (GA-PROP and GW-PROP).

All of these variables have been described earlier in this report. The reader is referred to Chapter 3 for definitions.

Before performing the regression procedure, simple correlational analyses were used to eliminate from the analysis certain of these variables which did not come close to approaching significance in their relationship with the social-problem-solving dependent variable. The variables retained for use as predictors, or independent variables, in the test of Hypothesis 4 were:

1. UNKPOS: perceived control over positive social and cognitive outcomes in school; unknown subscale score,
2. GA-PROP: proportional score for the nomination of kids who get along well; content knowledge in the interpersonal socialization domain,
3. GW-PROP: proportional score for the nomination of good workers; content knowledge in the task demands socialization domain, and
4. MAJMCH: student-teacher agreement regarding the most important classroom rule; general content knowledge variable.

In addition, reading achievement (SAT) scores were included as an independent variable in the analysis to control for a general verbal ability or "smartness" factor in determining children's social-problem-solving ability. Although Spivack et al. (1976) have stated that children's social-problem-solving ability is not significantly related to either IQ or verbal ability, Knepper, Obrzut, and Copeland (1983) have suggested that this may not be so. Their results indicated that a

high level of cognitive development does play a role in children's social-problem-solving skill development. This finding, coupled with the highly significant correlation obtained in the present sample between reading achievement and social-problem-solving ability (r = .40, p < .003) led to the inclusion of reading achievement scores as an independent variable in the multiple regression analysis.

The overall multiple regression equation was significant (F = 3.20, p < .01), indicating that one or more of the variables selected does predict children's social-problem-solving ability. Table 14 summarizes the relative contribution of each of the independent variables to children's overall social-problem-solving ability (SPSA-TOT). Together, a multiple correlation (R) of .49 was attained, indicating that approximately 24% of the variance in social-problem-solving ability could be explained by performance on the five independent measures included in the analysis. Surprisingly, reading achievement (SAT scores) entered the equation first, and was the only independent variable to significantly contribute to the total explained variance; approximately 16% of the total variance in children's social-problem-solving ability was explained by reading achievement. Thus, while the overall regression equation was significant, it cannot be said that support was found for the original hypothesis. It appears that reading achievement, to the exclusion of perceived control, perceived competence, and content knowledge variables, is the best predictor of children's social-problem-solving ability across both the interpersonal and task demands socialization domains. This finding runs counter to

Table 14

Multiple Correlations of Children's Overall Social-Problem-Solving Ability With Individual Student Variables

Variable	Simple R	Multiple R	R^2	R^2 Change	F to Enter	Significance	Beta	Overall F/ Significance
$READ_1$	.3966	.3966	.1573	.1573	4.60	.04*	.30	3.20
GA-PROP	.1475	.4248	.1804	.0231	.63	.43	.10	.014
MAJMCH	.2611	.4557	.2076	.0272	1.33	.25	.15	
GW-PROP	.2111	.4820	.2324	.0247	1.62	.21	.17	
UNKPOS	-.2925	.4926	.2426	.0103	.68	.42	-.11	

Note: $READ_1$ = reading achievement scores from Spring 1982

GA-PROP = proportional score for the nomination of kids who get along well (content knowledge in the interpersonal socialization domain)

MAJMCH = student-teacher agreement regarding the most important classroom rule (general content knowledge variable)

GW-PROP = proportional score for the nomination of good workers (content knowledge in the task demands socialization domain)

UNKPOS = perceived control over positive social and cognitive outcomes in school (unknown subscale score)

research reviewed by Spivack et al. (1976) which suggests that children's social-problem-solving ability is not merely a function of intelligence or verbal ability. However, it is consistent with the more recent findings of Knepper et al. (1983) and Pelligrini (1985).

Hypothesis 5

> Different subscale scores on certain individual student variables (perceived control, perceived competence, and content knowledge in the socialization domain) will predict the two "types" of social-problem-solving ability: interpersonal (SPSA-IP) and task demands (SPSA-TD). That is, "social" subscales are expected to predict SPSA-IP, while "cognitive" subscales should predict SPSA-TD. For both types of problem solving, the "unknown" source of control is expected to be the most predictive.

A forward stepwise multiple regression procedure was used to examine this hypothesis. The independent variables selected for possible inclusion in the analyses were chosen to parallel those used in the analysis of Hypothesis 4. As with Hypothesis 4, certain of these were eliminated before analysis on the basis of nonsignificant simple correlations. Thus, the perceived competence variables were eliminated, as were the "powerful others" and "internal" source of control subscale scores. The four content knowledge variables relating to student-teacher perceptions of classroom norms and standards (RPROP, MATCHA, MAJMCH, and MINMCH) were omitted as they do not break down into "social" and "cognitive" subscale scores.

For interpersonal social-problem-solving ability (SPSA-IP, dependent variable) the following predictors, or independent variables, were retained for use in the regression equation:

1. SUPOS: perceived control over positive social outcomes in school, unknown subscale score, and
2. GA-PROP: proportional score for the nomination of kids who get along well, content knowledge in the interpersonal socialization domain.

Reading achievement (SAT scores) was also included as an independent variable in the analysis. Thus, the multiple regression analysis for interpersonal social-problem-solving ability included three independent variables: reading achievement, GA-PROP, and SUPOS.

Overall, the predictor variables did account for a significant amount of variance in social-problem-solving ability ($F = 4.85$, $p < .01$). A total multiple correlation (R) of .47 was obtained, indicating that 22% of the variance in interpersonal social-problem-solving ability could be explained by children's performance on the three independent measures included in the analysis. Table 15 summarizes the relative contribution of each of the independent variables. As this table shows, reading achievement (SAT scores) entered the equation first. This was the only predictor variable to significantly contribute to the total explained variance, with 21% of the total variance in children's interpersonal social-problem-solving ability being explained by this factor alone. Thus, while the overall regression equation was significant, the results do not support the original hypothesis. Reading achievement appears to be most predictive of children's social-problem-solving ability in the interpersonal socialization domain, to the exclusion of all other variables of interest. This is consistent

Table 15

Multiple Correlations of Children's Social-Problem-Solving Ability in the Interpersonal Socialization Domain With Individual Student Variables

Variable	Simple R	Multiple R	R^2	R^2 Change	F to Enter	Significance	Beta	Overall F/ Significance
$READ_1$	.4587	.4587	.2104	.2104	12.56	.00**	.46	4.85
GA-PROP	.0856	.4676	.2186	.0083	.55	.46	.09	.005
SUPOS	-.1546	.4676	.2187	.0000	.00	.96	.01	

Note: $READ_1$ = reading achievement score from Spring 1982

GA-PROP = proportional score for the nomination of kids who get along well (content knowledge score in the interpersonal socialization domain)

SUPOS = perceived control over positive social outcomes in school (unknown subscale score)

with the results obtained in the analysis of the fourth hypothesis, where overall social-problem-solving ability was found to be primarily a function of reading achievement.

The multiple regression analysis performed in relation to task demands social-problem-solving ability included the following independent (predictor) variables:

1. CUPOS: perceived control over positive cognitive outcomes in school, unknown subscale score, and
2. GW-PROP: proportional score for the nomination of good workers, content knowledge in the task demands socialization domain.

Again, reading achievement was also included as a third independent variable in the analysis to control for the contribution of general verbal ability to variance obtained on the dependent measure.

The overall multiple regression equation was significant ($F = 3.67$, $p < .02$), indicating that one can predict task demands social-problem-solving ability (SPSA-TD) given knowledge of children's performance on the three independent variables included in the analysis. Table 16 summarizes the relative contribution of each of the independent variables in accounting for variance in SPSA-TD. Together, a multiple correlation (R) of .42 was attained, meaning that approximately 18% of the variance in task demands social-problem-solving ability could be explained by combined performance on the three predictor measures. The only independent variable to significantly contribute to the total explained variance was CUPOS, or children's perceived control over

Table 16

Multiple Correlations of Children's Social-Problem-Solving Ability in the Task Demands Socialization Domain With Individual Student Variables

Variable	Simple R	Multiple R	R^2	R^2 Change	F to Enter	Significance	Beta	Overall F/ Significance
$READ_1$	.2689	.2689	.0723	.0723	1.02	.32	.14	3.67
GW-PROP	.1451	.3038	.0923	.0200	.79	.38	.11	.018
CUPOS	-.3833	.4181	.1748	.0825	4.20	.03*	-.32	

Note: $READ_1$ = reading achievement scores from Spring 1982

GW-PROP = proportional score for the nomination of good workers (content knowledge in the task demands socialization domain)

CUPOS = perceived control over positive cognitive outcomes in school (unknown subscale score)

positive cognitive outcomes in school ("unknown" subscale score); CUPOS accounted for approximately 8% of the total variance in children's social-problem-solving ability in the task demands socialization domain. This finding was statistically significant at the .03 level, and as such provides limited partial support for the original hypothesis that the "unknown" source of control subscale score is more predictive of children's performance on the "subtypes" of social-problem-solving ability. Neither reading achievement nor content knowledge in the task demands socialization domain (GW-PROP) significantly predicted social-problem-solving ability in the task demands socialization domain.

To summarize, it appears that overall social-problem-solving ability across both the interpersonal and task demands socialization domains (SPSA-TOT) is best predicted by reading achievement scores, which refutes the fourth hypothesis of this investigation. When the two types of social-problem-solving ability are considered separately, a different pattern emerges. Reading achievement is the most potent predictor of problem-solving ability in the interpersonal domain, but this is not true of the task demands domain. An examination of what appears to contribute to SPSA-TD reveals that one of the control scales--cognitive unknown positive--is the most predictive factor. Harter and Connell (1981) have suggested that this knowledge factor plays a key causal role in children's academic achievement: "It is the child who is 'in the know,' as it were (whose Unknown score is low) who is the achiever." The fact that the cognitive-unknown variable

predicts SPSA-TD provides partial support for the fifth hypothesis of the present study. It does appear, then, that different contributing factors are at work in determining children's performance on the two subtypes of the social-problem-solving ability measure.

Hypothesis 6

> It is hypothesized that social-problem-solving ability in the interpersonal socialization domain (SPSA-IP) and social-problem-solving ability in the task demands socialization domain (SPSA-TD) are significantly and positively related.

Pearson correlations obtained in a two-tailed test of significance indicate that there is strong support for this hypothesis. The correlation between social-problem-solving ability in the interpersonal (SPSA-IP) and task demands (SPSA-TD) socialization domains is .66, statistically significant at the .001 level. Both SPSA-IP and SPSA-TD are correlated .91 with the overall social-problem-solving ability score (SPSA-TOT); this correlation is statistically significant at the .001 level. Thus it appears that the ability to solve problems in one socialization domain goes hand-in-hand with the ability to solve problems in the other. This is so at least in terms of children's responses to hypothetical classroom conflict situations. Responding to hypothetical situations is not the same as responding to real-life problem situations, although the research of Spivack et al. (1976) and Shure and Spivack (1972) does indicate that cognitive problem-solving tasks like the ones used here predict behavioral adjustment. On the basis of the above results, it is fair to say that the ability to resolve actual, real-life conflict situations in one classroom

socialization domain (i.e., IP) should correspond strongly with the ability to resolve conflict in the other (i.e., TD).

Qualitative Analysis of Student Interview Frequency Data

Introduction

Student responses to certain interview items were coded on a variety of coding systems developed specifically for use in the present study (see Chapter 3 for description of the development and content of these systems). Frequency data were generated on the basis of this coding. In this section, a descriptive account of these data is provided to supplement the information gained from the more quantitative (statistical) analyses of this investigation. It is possible to conceive of a variety of ways to look at these data. Given the socialization focus of this study, which has been cast in terms of two types of role demands, it was decided to examine qualitative data in light of the emphasis teachers place on these two aspects of the student role. Thus, responses are contrasted for students in two types of classrooms: those where teachers claim to emphasize interpersonal socialization outcomes and those where they claim to emphasize task demands socialization outcomes.

There are three major sections included below. First, information relating to an understanding of student perceptions of classroom norms and standards is presented. This is followed by a discussion of student perceptions of what it means to be a well-socialized student, or what characterizes "good workers" and "kids who get along well" in school. Finally, an account of student and teacher preferences for

types of class members (good workers versus kids who get along well) is presented. Together, these descriptive accounts of student perceptions relating to aspects of classroom socialization provide further insight into children's understanding of what is expected of them as they grapple with the task of becoming "socially" proficient.

Classroom Norms and Standards:
What is Important? And Why?

Students' perceptions of norms and standards for behavioral conduct in the classroom were assessed by the following interview items:

1. What are the rules in Mrs. _____'s classroom? Tell me as many as you know. (Interview item A-1.)

2. Now, of all the rules you just mentioned, which is the very most important one of all? Why is (most important rule) so important? (Interview items A-2 and A-3.)

3. What is the worst thing a kid can do in Mrs. _____'s classroom? Why is that so bad? (Interview items A-4 and A-5.)

4. When you think about all the things you do in Mrs. _____'s class, what is the one thing you could do that would make Mrs. _____ really happy? Why would that make Mrs. _____ so very happy? (Interview items A-6 and A-7.)

The discussion below focuses on three major areas: (a) the domain, or area of classroom life for which behavioral norms apply; (b) rationales given for stated behavioral norms and standards; and (c) extrinsic consequences for behavioral infractions of such norms and standards. All coding categories referred to in the text were developed as part of the "Rules, Worst/Happiest Thing" coding system (see Appendix B).

Domain (Items A-1, A-2). Overall, children in interpersonal and task demands classrooms look remarkably similar in terms of the numbers

of rules given (IP = 142, TD = 162) and the percentage or proportion of responses given in each domain category (task, interpersonal, and procedural). Both groups placed primary emphasis on procedural rules, followed by task-related rules; both groups placed least emphasis on interpersonal rules. Subjects' rule statements probably reflect fairly well the actual classroom situations: Most rules in the classroom are likely to be geared toward keeping things running smoothly (i.e., procedural in nature). Since the school is a workplace, task-related rules should also be fairly prominent, followed, perhaps, by rules in the interpersonal domain. The assumption of congruence between student rule perceptions and reality is reasonable given the high degree of student-teacher agreement as measured by content knowledge variable RPROP. Table 17 indicates the emphasis given to each domain by the interpersonal (IP) and task demands (TD) groups.

Table 17

Percentage of Rules Given by Children in Interpersonal and Task Demands Classrooms, Categorized by Domain

	Group	
	Interpersonal	Task Demands
Task domain	28.17%	30.25%
Interpersonal domain	24.65	19.14
Procedural domain	43.66	36.42
Domain unclear	3.52	14.20

Within rule domains, some interesting differences do appear between interpersonal (IP) and task demands (TD) classrooms. (See Appendix E for a table of rule frequency data broken down by subdomain.) In the task domain, students in IP classrooms emphasized rules governing "social" behaviors in academic contexts more than any other type of task-related rules; 50% of all IP students' task-related rules dealt with on/off task, "social" behavior (coding category A3). In contrast to this, TD students' rules in the task domain pertained primarily to on/off task nonsocial behavior; approximately 43% of all task-related rules given by these students were of this sort (coding categories A1 and A2). Compared to their IP counterparts, TD students gave three times as many on/off task, nonsocial rules (21 versus 7). The next most frequently used task-related rule category for both groups of students was task completion (A4). They both used this category with about equal frequency (7 versus 6 responses, respectively). Rules about following directions followed task completion rules in frequency for both IP and TD students (4 and 3 responses, respectively; coding categories A9 and A10). In general, it can be said that, for both groups, rules relating to being on/off task were most salient, followed by rules relating to task completion and following directions. Those in interpersonally-oriented classrooms focused more on "social" rules, while those in task-oriented classrooms gave primary emphasis to "nonsocial" rules.

Within the interpersonal domain, both groups of students gave the greatest emphasis to rules governing physical behavior (i.e., fighting,

hitting; coding category B2); they placed about equal emphasis on this sort of rule. Exclusive of "physical" interpersonal rules, IP and TD students differed in their emphasis on type of interpersonal rule. For TD students, the type of interpersonal rule mentioned most frequently after the physical had to do with verbal behavior (category B1). Almost 26% of the interpersonal rules generated by those in task demands classrooms were of this sort. Only 9% of the interpersonal rules generated by IP students dealt with verbal behavior. In other words, the emphasis placed on rules governing verbal behavior was nearly three times greater among TD as compared to IP students.

The type of rule mentioned next in frequency to "physical" interpersonal rules by IP students was labelled "general, abstract" in nature (category B4). Rules of this sort refer to interpersonal constructs such as "cooperation" and "respect." More than a quarter of all IP students' interpersonal rules were of this sort. No rules of this sort were given by TD students.

It may be that the different emphasis IP and TD students place on type of interpersonal rule is not as significant as might appear. Rule statements in the "interpersonal-verbal" (B1) category most frequently referred to "sassing" or "cursing" the teacher or other children. This can be construed as a concrete example of "showing disrespect" for other individuals. The apparent difference in type of rule emphasized by IP versus TD students, then, may relate less to substance and more to this concrete versus abstract dimension. It may be, therefore, that interpersonal teachers provide a more abstract rendering of rules ("Be

respectful") as compared to the more concrete statements preferred by task demands teachers ("Don't sass the teacher"); this concrete-abstract distinction is then reflected in the rule statements made by students.

The procedural domain was the most frequently used category for both IP and TD students. Within this domain, rules relating to movement/space (category C4) were most frequently given by both groups of students. Approximately 22% of all rules given by IP students, and 21% of all rules given by TD students, were of this sort. Exclusive of movement/space rules, the two groups differed in their emphasis on type of procedural rule. Those in IP classrooms concentrated on rules governing "social" behavior during procedural routines; over 24% of their procedural rules were of this sort, as compared to 5% of the procedural rules given by TD students. In other words, five times as many "social" procedural rules were offered by IP, as compared to TD, students. For those in TD classrooms, the procedural rule category receiving greatest emphasis (following movement/space rules) was one pertaining to how to respond to or get the teacher's attention (category C6). Almost 19% of the procedural rules given by TD students were of this sort, as compared to less than 10% of IP students' procedural rules. In other words, the emphasis placed on this type of procedural rule by those in classrooms with a task demands orientation was nearly twice that of those in the IP classrooms.

To summarize, while overall the two groups of students (IP and TD) look quite similar in terms of number of rules given and general

domains emphasized, close examination of responses within rule domains suggests that systematic differences do exist. Briefly, it can be said that those in IP classrooms tended to emphasize "social" rules (rules governing social interaction) much more than did those in TD classrooms. In addition, IP students emphasized rules relating to abstract interpersonal constructs more than did TD students. In contrast, those in task demands classrooms tended to focus on rules governing nonsocial behaviors--as well as rules relating to concrete interpersonal behavior--to a much greater extent than did IP students. It was thought that these differences in rule statements reflect differences in the numbers and types of rules stressed by teachers who differ in socialization priority. This speculation could be verified by analyzing narrative descriptions of teacher observations as well as tapes of the first few days of school when rule systems were prominently emphasized by teachers. (This type of data was collected for the present sample in conjunction with the Socialization Outcomes project; however, it is beyond the scope of this thesis to complete this analysis.)

Domain (Item A-4). When asked to focus on behavioral infractions, or the worst thing a student can do in class, both IP and TD groups focused primarily on transgressions in the interpersonal domain. IP students were more extreme in this regard, with over 90% of all their responses being of this sort, as compared to about 69% for their TD counterparts. Within the interpersonal domain, IP students concentrated heavily on physical transgressions; approximately 69% of all their responses to the "worst thing" question were of this sort.

TD students, on the other hand, emphasized verbal and physical abuse about equally (coding categories B1 and B2; 37.5% and 31.25% of all responses, respectively). Only TD students gave responses to the "worst thing" question which fell into the task domain. Approximately 22% of their responses were of this sort, most having to do with task completion (category A4) and off-task nonsocial behaviors (category A1). Procedural sorts of responses were offered only by the IP students. Table 18 indicates the emphasis given to each domain by those in each of the two types of classrooms. (See Appendix E for a table of "worst thing" frequency data broken down by subdomain.)

Table 18

Percentage of "Worst Thing" Responses Given by Children in Interpersonal and Task Demands Classrooms, Categorized by Domain

	Group	
	Interpersonal	Task Demands
Task domain	--	21.88%
Interpersonal domain	90.63%	68.75
Procedural domain	9.38	--
Domain unclear	--	9.38

Domain (Item A-6). In talking about things they could do to make their teacher the very happiest, both IP and TD students focused primarily on things in the task domain, with the emphasis being much

stronger in TD classrooms (53.13% versus 75% of responses, respectively). IP students gave over twice the emphasis to the interpersonal domain as did TD students (31.25% versus 13.89% of all responses, respectively). Virtually all categorizable responses given by kids in both groups fell within the task or interpersonal domains. Table 19 indicates the emphasis given to each domain by the IP and TD kids.

Table 19

Percentage of "Happiest Thing" Responses Given by Children in Interpersonal and Task Demands Classrooms, Categorized by Domain

	Group	
	Interpersonal	Task Demands
Task domain	53.13%	75.00%
Interpersonal domain	31.25	13.89
Procedural domain	3.13	2.78
Domain unclear	12.50	8.33

For both IP and TD students, the single most important thing kids felt they could do to make their teachers the happiest was to get their work done. For each group, approximately 28% of all responses to this interview item were work-completion related. These responses did not contain information about how they were to get the work done, or with what degree of accuracy; the point seemed to be to get through the assigned work in the time allotted. This finding is consistent with other research which suggests that children's primary concern is to

complete their work assignments in whatever way they can (Anderson, Brubaker, Alleman-Brooks, & Duffy, 1984).

Summary. When subjects' responses are examined across all interview items assessing student perceptions of norms and standards for behavioral conduct in the classroom (items A1, A2, A4, and A6), the general domains emphasized by those in the interpersonal and task demands oriented classrooms are somewhat different, although not dramatically so. Children in IP classrooms stress first the interpersonal domain, followed by the procedural and task demands domains. The TD group places greater emphasis on norms and standards relating to the task demands as compared with the procedural and interpersonal domains. Table 20 provides the percentages of IP and TD responses falling within each domain. These percentages are based on only those responses which were categorizable in terms of the three domains.

Table 20

Percentages of Responses to Interview Items A1, A2, A4, and A6 Given by Children in Interpersonal and Task Demands Classrooms, Categorized by Domain

	Group	
	Interpersonal	Task Demands
Task domain	28.93%	41.29%
Interpersonal domain	37.56	28.86
Procedural domain	33.50	29.85

It can be seen from Table 20 that each group gave primary emphasis to the domain "matching" their teacher priority classification: Approximately 41% of all TD youngsters' responses were task-related, while about 38% of IP youngsters' responses represented interpersonal concerns. While this differential emphasis is by no means dramatic, it is interesting, particularly given the stronger differences found to exist between the two groups in terms of subdomains emphasized. Thus, IP students evidenced more concern over social and abstract norms, while TD students stressed nonsocial, concrete norms. It is fair to say that the interpersonal and task demands groups have somewhat different perceptions regarding norms and standards for behavioral conduct in the classroom. These differences may be due to differential teacher emphasis on various aspects of classroom life. An examination of the rationales offered by IP and TD students for classroom norms and standards points to further distinctions in perceptions between the two groups. This is the focus of the next section of this report.

Rationales (Items A1-A3). Approximately equal numbers of rationales (solicited or unsolicited) were provided for rule statements by students in interpersonal (IP) and task demands (TD) classrooms. Thirty percent of all IP students' rules and 32% of TD students' rules were accompanied by rationales. Interestingly, about twice as many spontaneous rationales were given by those in TD, as compared with IP, classrooms (25 versus 12, respectively). Presumably, this difference reflects to some extent differences in teacher behavior, both verbal and nonverbal, relating to rationales provided to students regarding

behavioral (non)compliance. (It is pointed out below that TD students focused heavily on "authority" in their rationale statements. Thus, most spontaneously offered rationales sounded something like this: "because she'll get really mad if you don't" or "because the teacher said so" or "because it's the school law.")

In terms of type of rationale given, the primary distinction between the two groups relates to "social" versus "authoritarian-moralistic" type rationales. "Social" rationales (categories E1 and E4, combined) refer to the effect of behavioral (non)compliance on members of the classroom group other than the behaver him/herself. "Authoritarian-moralistic" rationales (categories E1 and #7, combined) are stated either in terms of the teacher's authority in the classroom extremes in teacher affect, or they in some way resemble "preaching" or "moralizing" (e.g., "You're not here to visit, you're here to learn").

Children in interpersonal classrooms emphasized "social" rationales above all else (44.19%), closely followed by "individual" rationales (the effect of behavioral (non)compliance on the behaver him/herself; 39.53%). Together, these categories accounted for about 84% of all IP students' rationales. Children in task demands classrooms emphasized "authoritarian-moralistic" rationales above all else, with over one-third of all their rationales being of this sort. This is in contrast to those in the IP group who had only 9.3% "authoritarian-moralistic" rationales. In terms of frequency of response, TD students gave four times as many "authoritarian-moralistic" rationales as did their IP counterparts (16 versus 4

responses, respectively). Aside from the emphasis placed on authoritarian-moralistic" rationales, TD students gave equal emphasis to "individual" and "social" rationales (29.17% per category). This is a fair amount less than the emphasis given these types of rationales by those in IP classrooms. Table 21 indicates the emphasis given to "social," "individual," and "authoritarian-moralistic" rationales by children in interpersonal versus task demands classrooms.

Table 21

Percentage of "Social," "Individual," and "Authoritarian-Moralistic" Rationales for Classroom Rules Given by Children in Interpersonal and Task Demands Classrooms

	Group	
	Interpersonal	Task Demands
Social	44.19%	29.17%
Individual	39.53	29.17
Authoritarian-moralistic	9.3	39.58

To summarize, IP students appear to focus on "social" rationales for classroom rules, followed closely by an emphasis on "individual" rationales. Little attention was given by IP students to any other type of rationale. In contrast, students in TD oriented classrooms placed the heaviest emphasis on "authoritarian-moralistic" rationales, followed by an equal emphasis on "individual" and "social" rationales. This pattern of results is consistent with those obtained for

children's rationale responses to the "worst" and "happiest" thing questions, discussed below.

Rationales (Item A5). When discussing the worst thing a kid can do in school, children in task demands classrooms focused primarily on "authoritarian-moralistic" rationales, with 60% of their rationales being of this sort. By comparison, "authoritarian-moralistic" rationales comprised only 16.67% of all rationales offered by children in interpersonal classrooms. In other words, about three times as many "authoritarian-moralistic" rationales were given by TD as compared to IP students. As with the previous question, those in IP classrooms focused primarily on "social" rationales (categories E2 and E4, combined), with 58.33% of their responses to the "worst thing" probe being of this sort. This is in marked contrast to the TD group, where "social" rationales comprised only 23.33% of all the rationales given. Following the previous pattern, children in interpersonal classrooms also gave considerably more weight to "individual" rationales than did children in task demands classes (22.22% versus 13.33%, respectively). Table 22 summarizes the relative emphasis given to "social," "individual," and "authoritarian-moralistic" rationales by children in interpersonal and task demands classrooms.

Rationales (Item A7). As with rationales relating to rules and the worst thing a kid can do in class, children in interpersonal classrooms also emphasized "social" rationales above all else when discussing the one one thing they could do to make their teacher the very happiest; 42.86% of all rationales given by IP students were

Table 22

Percentage of "Social," "Individual," and "Authoritarian-Moralistic" Rationales for Worst Things Given by Children in Interpersonal and Task Demands Classrooms

	Group	
	Interpersonal	Task Demands
Social	58.33%	23.33%
Individual	22.22	13.33
Authoritarian-moralistic	16.67	60.00

of this sort. In contrast, only 26.32% of the TD students' rationales were "social" in nature. Children in task demands classrooms emphasized "authoritarian-moralistic" rationales above all else, with nearly 58% of their responses falling in this category. Twice as many "authoritarian-moralistic" rationales were given by TD as compared with IP students (the actual frequency being 22 versus 11, respectively). Neither group of kids placed much emphasis on "individual" rationales; an equal number (4) of such responses was offered by IP and TD students. Table 23 indicates the percentage of "social," "individual," and "authoritarian-moralistic" rationales offered by IP and TD students in response to the "happiest thing" question (item A7).

Table 23

Percentage of "Social," "Individual," and "Authoritarian-Moralistic" Rationales for Happiest Things Given by Children in Interpersonal and Task Demands Classrooms

	Group	
	Interpersonal	Task Demands
Social	42.86%	26.32%
Individual	11.43	10.53
Authoritarian-moralistic	31.43	57.89

Summary. When all subjects' rationales for behavioral norms and standards are considered simultaneously (collapsing across rules, "worst," and "happiest" things questions), interesting differences between the interpersonal and task demands groups of classrooms occur. Overall, children in interpersonal classrooms place great emphasis on "social" rationales, evidencing concern for the effect of their behavior on other members of the classroom group. Over half of all IP students' categorizable rationales for norms and standards were social in nature. This is in contrast to the approximately 28% offered by those in TD classrooms. Children in task demands classrooms focused primarily on "authoritarian-moralistic" rationales, with over half of their categorizable responses being of this sort. Only 20% of the categorizable rationales offered by IP children were "authoritarian-moralistic" in nature; this type of rationale was of least concern to IP students. TD students, on the other hand, were least concerned with the individual or personal effects of behavior. Table 24 summarizes

the emphasis given to "social," "individual," and "authoritarian-moralistic" rationales for norms and standards by children in interpersonal and task demands classrooms.

Table 24

Percentage of "Social," "Individual," and "Authoritarian-Moralistic" Rationales for Classroom Norms and Standards Given by Children in Interpersonal and Task Demands Classrooms (Categorizable Responses Only)

	Group	
	Interpersonal	Task Demands
Social	52.38%	28.44%
Individual	27.62	20.18
Authoritarian-moralistic	20.00	51.38

One might speculate that the types of norms, standards, and accompanying rationales stressed by children in interpersonal and task demands classrooms reflect, to some extent, the relative emphasis teachers placed on these two aspects of classroom socialization. To substantiate this claim, it would be necessary to look at what actually occurs in these classrooms in terms of teacher verbal and nonverbal behavior. Through the Socialization Outcomes project, such data are available, and such analyses are underway. However, it is beyond the scope of this report to present results of these analyses here. The next section focuses on the extrinsic consequences for behavioral

(non)compliance offered by children in interpersonal and task demands classrooms.

Extrinsic consequences (Items A1-A3). When discussing classroom rules, children in task demands classrooms offered over twice as many statements of extrinsic consequences for behavioral (non)compliance as did children in interpersonal classrooms (30 versus 13 responses, respectively). Both IP and TD students focused equally on negative as compared to positive consequences, with over 90% of all extrinsic consequences being negative. The two groups did differ in terms of the type of consequence stressed, with IP students focusing more on tangible, or concrete, material consequences (69.23% of responses, coding categories G3 and G5) while their TD counterparts emphasized the bestowing or withdrawal of activities and privileges (56.66% of responses, coding categories G4 and G6). Overall, the emphasis was on immediate, as opposed to cumulative, consequences for behavior. Approximately 77% of the statements of extrinsic consequences made by each group concerned the immediate application of consequences. (A table of frequency data used to generate the percentages discussed above, as well as in the following three sections, is found in Appendix E.)

Extrinsic consequences (Item A5). When discussing the worst thing a kid can do in class, children in task demands classrooms once again made nearly twice as many statements of extrinsic consequences as did children in interpersonal classrooms (17 versus 9 actual responses for the two groups). Not surprisingly, given the nature of the interview

item, all extrinsic consequences given by students were negative. Both groups focused primarily on the immediate withholding of activities/ privileges (recess, free time, etc.).

Extrinsic consequences (Item A7). Consistent with responses to the "worst thing" and rules questions, children in task demands classrooms gave almost twice as many extrinsic consequences as did IP students when discussing the "happiest thing" question (9 versus 5 responses, respectively). Given the nature of the question, children in both groups predictably emphasized positive, as opposed to negative, consequences for behavior. As with responses to the "worst thing" question, children in both interpersonal and task demands classrooms focused primarily on the immediate withholding or bestowing of activities or privileges.

Summary. To summarize, children in IP and TD classrooms thought differently about the issue of compliance/noncompliance as it relates to norms and standards for behavioral conduct in the classroom: Children in task demands classrooms made twice as many extrinsic consequence statements as did children in interpersonal classrooms (56 versus 27 responses, respectively). While, overall, both groups of children stressed activity-related consequences (as opposed to tangible--concrete, material--consequences), this emphasis was much more pronounced for children in task demands classrooms. Approximately 66% of all extrinsic consequences discussed by TD students were activity-related, while only 28.57% were "tangible" in nature. In contrast, the ratio was nearly equal in the IP classrooms (48% to 41%).

If student data mirror reality, interpersonally oriented teachers may rely less on activity-related punishments because they feel activities like recess or field trips play an important role in socialization.

Across all relevant interview items, both groups of children stressed the immediate (as opposed to cumulative) application of extrinsic consequences. Approximately 80% of all statements of extrinsic consequences were of this sort. Overall, consequences were perceived by both groups of students as primarily negative in nature. This is not surprising given the reality of classroom life, where, for example, children are often faced with the following type of ultimatum: "If you don't get your work done, you don't go out for recess." In the present study, children's statements of extrinsic consequence simply seem to reflect this fact of classroom life, regardless of group membership. Table 25 summarizes the emphasis given to various types of extrinsic consequences by children in the two types of classrooms when discussing norms and standards for behavioral conduct in the classroom.

Characteristics of Well-Socialized Students

Student responses to two interview items were analyzed to explore student perceptions of what it means to be well socialized in both the interpersonal and task demands socialization domains. Thus, we will consider what it means from a student perspective to be a good worker and to get along well with others in the classroom. All coding categories referred to are taken from the "Characteristics of Good

Workers" and "Characteristics of Kids Who Get Along Well" coding systems (see Appendix B).

Table 25

Type of Extrinsic Consequence Emphasized by Children in Interpersonal and Task Demands Classrooms

	Group	
	Interpersonal	Task Demands
Praise/criticism	11.11%	5.36%
Immediate tangible	37.04	25.00
Immediate activity	44.44	53.57
Cumulative tangible	3.70	3.57
Cumulative activity	3.70	12.50

Good workers. For children in both interpersonal and task demands classrooms, task-related behaviors were most frequently used as descriptors of good workers. In particular, the "on-task" and "work completion" categories (D2 and D5) were used most frequently by both IP and TD students. For both groups, the next most frequently used general coding category was "academic characteristics," followed by social behaviors and "nonacademic characteristics." Although both groups of students emphasized primarily task-related behaviors in their descriptions of good workers, those in TD classrooms were more extreme in this regard. Over three-fourths (76.19%) of all the behaviors they listed were task-related, with the remaining 23.81% being "social" in nature. For IP students, approximately 60% of all behaviors listed

were task-related; 40.74% were "social" in nature. Thus, while for all students task-related behaviors were more salient indicators of being a good worker, children in interpersonal classrooms, more so than those in task demands classes, seemed to recognize the importance of "social" behaviors in determining who the good workers are in school. One might speculate that in IP classrooms, teachers stress more openly the importance of appropriate social behaviors, and that the students pick up on this information, using it in their evaluations of peers' work behaviors.

Students in the two types of classrooms placed nearly equal emphasis on academic characteristics (42 and 49 responses, respectively) when describing the good worker. The most salient academic characteristic for both was academic accuracy; about 40% of all academic characteristics listed by IP and TD students related to this issue. The next most frequent type of academic characteristic given by both groups was academic ability. Approximately 36% of IP and 31% of TD youngsters' responses were of this sort. Children in interpersonal classrooms gave over five times as many "academic" as "nonacademic" characteristics when describing good workers. For TD students, the ratio was closer to 4:1. For the total sample, over four times as many academic as opposed to nonacademic characteristics were given (91 versus 20 responses, respectively). Table 26 provides frequency data for the "academic" characteristics, "nonacademic" characteristics, and concrete behavioral categories discussed above.

Table 26

Frequency Data Relating to Descriptions of "Good Workers" Provided by Children in Interpersonal and Task Demands Classrooms

	Group			Group	
	IP	TD		IP	TD
Academic Characteristics:			**Task-Related Behaviors:**		
1. Accuracy	17	20	1. On-task	20	20
2. Ability	15	15	2. Work pace	7	14
3. Understands	0	2	3. Completion	12	15
4. Good	8	9	4. Effort	2	5
5. Knows	1	3	5. Independent worker	3	1
6. Other	1	0	6. Other	4	9
	42	49		48	64
Nonacademic Characteristics:			**Social Behaviors:**		
1. Art	3	5	1. Nonhostile/aggressive	9	4
2. Penmanship	5	5	2. Nondisruptive	3	1
3. Athletics	0	1	3. Follows rules	4	2
4. Other	0	1	4. Helpful	7	7
	8	12	5. Listens	2	3
			6. Seeks help	0	2
			7. Cares for supplies	3	0
			8. Other	5	1
				33	20

Children in both interpersonal and task demands classrooms attend more to concrete behaviors than anything else in their descriptions of "the good worker" in school. In particular, task-related behaviors (e.g., effort, task completion), along with more general academic characteristics (e.g., ability), were perceived as the most salient aspects of good workers. Both IP and TD students included concrete "social" behavior (e.g., doesn't fight, helps others) and general nonacademic characteristics (e.g., artistic ability) in their descriptions of good workers. However, children in interpersonal classrooms were more prone than those in the other type of classroom to incorporate such information in their good-worker descriptions.

Kids who get along well. Overall, very few differences emerged in the ways in which children in interpersonal versus task demands classrooms describe "kids who get along well" in school. Across nearly all general coding categories children in task demands classrooms gave slightly higher frequencies of response. This may relate more than anything else to the fact that, as a group, TD students are slightly older than children in the interpersonal group (a difference in mean age of approximately 6 months). It appears that two-thirds or more of all students (IP and TD) perceive being helpful, easygoing, and playing well with others as contributing to how well one gets along in school (general coding categories A, E, and C). Both more global, internal characteristics (category G) and specific behavioral indicators (category I) are taken into account when describing those who get along well. Being "nice," for example, was considered particularly

important by both groups of students, with approximately 40% of all "internal characteristics" referred to being of this sort.

Children in task demands classrooms appeared to rely somewhat more on first-hand, personal interaction experiences when describing kids who get along well. For example, they gave many more responses such as "he is my best friend" or "she plays nice with me" than did children in interpersonal classrooms. More typical of IP students' responses are statements such as "she is friends with lots of kids" or "he plays really well with everybody." In fact, TD students were nearly three times as likely as IP students to nominate personal friends as "kids who get along well." Children in interpersonal classrooms may be more objective in this regard, realizing that while someone may not be a personal friend, s/he could still be one of the students who gets along best with many others at school.

Interestingly, over one-third of all references made to "helpfulness" concerned instances of academic helpfulness. Similarly, work-oriented, nondisruptive behaviors were given considerable attention; approximately 18% of all categorizable responses (category I) given by both groups of students were of this sort. This suggests that children do seem to be aware that working with and helping others academically plays an important role in determining how well one gets along with others in general at school. Table 27 presents the frequency data relating to children's perceptions of kids who get along well in school as discussed above.

Table 27

Frequency Data Relating to Descriptions of "Kids Who Get Along Well" Provided by Children in Interpersonal and Task Demands Classrooms

	Group IP	Group TD
Helpfulness:		
1. Academic	7	8
2. Nonacademic	10	17
3. Other	5	4
	22	29
Play:		
1. Mentioned	22	23
2. Not mentioned	10	9
	32	32
Easygoing		
1. Verbal	8	11
2. Physical	16	9
3. Other	0	3
	24	23
Internal Characteristics:		
1. Nice	13	14
2. Courteous/ caring	5	3
3. Friendly	3	5
4. Funny	2	5
5. Acad./intell. endowed	3	3
6. Other	2	11
	28	41
Behaviors:		
1. Compliant	4	4
2. Give-always	3	4
3. Works/non-disruptive	4	7
4. Humorous	2	1
5. Polite	2	3
6. Praises	3	2
7. Verb. appropriate	2	5
8. Sociable	5	5
9. Caring	1	5
10. Other	3	8
	29	44
Reference Points:		
1. Observed	75	78
2. Personal	9	23
	84	101

In sum, it can be said that children in interpersonal and task demands classrooms share common perceptions regarding what characterizes the well-socialized student in the interpersonal socialization domain. Relevant social characteristics as well as references to good work behavior and academic helpfulness were prominent in the interview protocols of both TD and IP students. However, children in task demands classrooms did tend to rely more on personal, interactional experiences in their descriptions than did IP students. It is possible, though by no means certain, that this reflects a difference in their degree of objectivity when identifying the "kids who get along really well."

Who Is Chosen?

Responses to two parallel student and teacher interview items were analyzed to explore preferences for two types of students: the "good worker" versus the "kid who gets along well." These items were considered to indirectly assess student and teacher priorities regarding socialization outcomes in school. A discussion of the actual student and teacher choices and the rationales for those choices is presented below. All coding categories refer to the "Who Is Chosen?" coding system (Appendix B).

Making choices. When guessing which type of student their teachers would prefer as a new class member (items P1 and P2), both the interpersonal and task demands groups chose the "good worker" slightly more often than the "kid who gets along well" (17 versus 15, for each group, in favor of the good worker). Compared to teachers' choices,

the students were "right" a little less than half the time; in both groups, there were 15 matches and 17 mismatches.

When choosing for themselves who they would prefer as a new class member (items P3 and P4), both groups of students tended to prefer the "kid who gets along well." This preference was, somewhat surprisingly, much stronger among TD students; 75% (24) of all TD students chose the "kid who gets along well." By comparison, only 56% (18) of the IP students chose this type of student over the "good worker." It is not at all clear why this should be the case; perhaps this finding represents chance occurrence more than anything else. It does, however, seem somewhat consistent with the finding that TD students are more likely than their IP counterparts to refer to personal friendship in their descriptions of "kids who get along well." Perhaps children in TD classrooms have less opportunity overall for interpersonal interaction than do those in IP classrooms; thus the need for personal friendship might be more salient among TD students. Children in IP classrooms did somewhat better than TD students in matching their teachers' preferences for type of classmate, with 18 matches and 14 mismatches for IP students versus 14 matches and 18 mismatches for TD students.

Rationales for choices. Both IP and TD students focused primarily on positive aspects of the chosen hypothetical student in rationalizing their choice. Approximately 63% of all rationale statements were of this sort. Overall, more than twice as many statements relating to positive aspects of the chosen hypothetical student (n = 171) were given as compared to statements concerning negative aspects of the unchosen

student (n = 75). This was true for both students' guesses regarding the teachers' choices, and for students' own personal preferences.

Approximately 28% of all rationale statements concerned negative aspects of the unchosen hypothetical student. Both in terms of their teachers' choices and their own choices for a new classmate, IP students concentrated more on negative aspects of the unchosen hypothetical student than did TD students; overall, those in IP classrooms gave nearly 30% more responses of this sort. This difference was due mainly to the greater number of "negative qualities" (category C) and "negative effects" (category H) mentioned by IP students. It certainly is not clear just why children in IP classrooms focused more on negative behavioral qualities and effects than did their TD counterparts. It is reasonable to speculate, however, that more discussion revolving around interpersonal behavior in general occurs in interpersonally-oriented classrooms and that teachers in IP classrooms are more likely than those in TD classrooms to point out and explain to their students the effects of negative behavior. Thus, IP students' responses may reflect a keener awareness of the effects of negative or undesirable behavior.

Approximately 9% of all rationale statements concerned the "changeability" of behavior for either the chosen or unchosen student. Overall, TD students were more likely to discuss strategies for behavior change (or malleability of behavior) when rationalizing their choices. This was so regardless of whether students were guessing their teacher's choice or stating their own preference. Across both items, over twice as many "changeability of behavior" statements were

made by TD kids (17 versus 7 responses). Particularly when making their own choices, TD students considered possibilities for behavior change (e.g., "I could help them learn to do their own work"), giving four times as many responses of this sort as did IP kids (8 versus 2 responses). Recall that most TD students (24 out of 32) stated a preference for the "kid who gets along well." Thus, statements regarding behavioral change tended to focus on possibilities for improved work behavior. It seems likely that this emphasis reflects messages TD students receive from their task-oriented teachers regarding strategies for improvement in work-related behavior.

To summarize, in guessing whom their teachers would chose to be a new class member, children in interpersonal and task demands classrooms opted for the "good worker" a slight majority of the time; they were accurate less than 50% of the time in matching their teachers' actual choices. For themselves, IP and TD students preferred the "kid who gets along well," with this preference being quite a bit stronger among TD students. IP students' personal preferences for a new classmate matched their teachers' somewhat better than did TD students'. Rationales for choices consisted primarily of discussing positive aspects of the chosen hypothetical student. This was true for both IP and TD students. There were a good many responses concerning negative aspects of the unchosen student; a majority of these were provided by IP students. TD students, much more so than IP kids, offered statements relating to the changeability of behavior in rationalizing their choices.

It appears, overall, that few differences exist between children in interpersonal versus task demands classrooms in terms of either the type of classmate preferred or the rationales given for stated preferences. Students seem to want a classmate they can get along with, although, given the choice, they think their teachers would prefer a good worker. In fact, five of the eight teachers included in the study said they would select the "kid who gets along well" over the "good worker." Interestingly, only five of the eight teachers selected hypothetical classmates who "matched" their professed teacher socialization priority (interpersonal versus task demands focus). Like their students, teachers' rationales focused primarily on positive aspects of the chosen hypothetical student (categories B, D, and G). All but one of the eight teachers also discussed strategies for effecting behavior change (category F) when explaining their choices (e.g., "I would prefer to have someone who gets along well with the classroom group because that is the first step. I believe I could work with that student to improve work behaviors. . . .").

Summary of Qualitative Analyses

Some interesting differences in student perceptions have emerged which appear to be related to the teacher socialization priority grouping variable. These differences relate primarily to the specific domains emphasized when discussing classroom norms and standards for behavioral conduct, as well as rationales accompanying such norms and standards. While the data are suggestive of other areas of

differential perception between the "interpersonal" and "task demands" groups of students (e.g., differential emphasis was placed on certain descriptors used in characterizing well-socialized students in the interpersonal and task demands socialization domains), such differences are not too remarkable. Taken together, however, the results of the qualitative analyses do seem to point to differences in students' content knowledge which might be attributable, or at least related, to classroom teachers' professed socialization priorities. Perhaps, then, certain teacher behaviors in the classroom are influenced by their socialization priority systems, with the result that students' content knowledge in the socialization domains reflects, more or less directly, the socialization goals teachers have for their students. Further discussion of these results is found in Chapter 5.

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CHAPTER V

DISCUSSION, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

In this chapter, results presented at length in the preceding chapter are briefly summarized. Interpretations are offered, and links with related areas of research are established. Several limitations of the present study are discussed. Finally, recommendations for future research in the area of classroom socialization are advanced.

Discussion

One of the major purposes of this investigation was to explore the relationship between children's content knowledge and process knowledge and their actual behavioral adjustment in the classroom. It was thought that what children know about what is expected of them (content knowledge), as well as their ability to operationalize such knowledge in the face of everyday classroom problem situations (process knowledge, or social-problem-solving ability) should be directly related to overt behavioral adjustment in the task demands and interpersonal socialization domains. The results of this study provide no support for the posited relationship between children's content and process knowledge and behavioral adjustment, at least when the latter is measured by teacher ratings. Although unexpected, this result is congruent with

results of another IRT research study in which students identified as "problem students" turned out to be as knowledgeable as other students about behavioral standards in the classroom (Rohrkemper, 1981).

There are plausible explanations for the results obtained in this study. For example, it seems likely that teachers' ratings of adjustment were based on actual observations of behavior, in particular the extent to which students are cooperative and compliant in the classroom. This does not bear any necessary relationship to the ability to think about socialization issues in a controlled setting (i.e., the interview). In other words, a "halo" effect, based on behavioral compliance, may well have served to obscure the more subtle distinctions in social adjustment which were hoped for. Brophy and Evertson (1981), among others, document that halo effects are often a problem when obtaining teacher ratings.

Even though there was no relationship between the three measures of socialization competency employed in this study (teacher ratings, content knowledge, and process knowledge), interesting patterns of results did emerge in children's social understanding and social-problem-solving ability. The discussion below focuses first on children's social-problem-solving ability, followed by results relating to children's content knowledge in the interpersonal and task demands socialization domains. The results of quantitative as well as the more qualitative analyses relating to teacher socialization priority will be discussed.

At the classroom level, growth in task-related as well as interpersonally-oriented outcome measures (i.e., the "effectiveness" measures) appears unrelated to children's social-problem-solving ability. Teacher socialization priority similarly is unrelated to social-problem-solving ability, both across or within the task demands and interpersonal socialization domains. What does appear to predict social-problem-solving ability, particularly in the task demands socialization domain, is teachers' control orientation as measured by the Problems in Schools Questionnaire (Deci et al., 1981). This questionnaire measures the extent to which teachers are controlling versus autonomy-granting in their interactions with students. To summarize results presented earlier, it appears as though children in more controlling, or more highly structured classrooms demonstrate superior social-problem-solving abilities compared with those in less structured, more autonomy-granting type atmospheres.

Assuming that teachers' control orientation is linked to teacher behavior in the classroom (see Deci et al., 1981, and Halperin, 1976, for a discussion of the relationship between teacher control orientation and teacher behavior), and given the relationship found to exist between higher levels of teacher structuring and gains in student achievement (see Brophy & Good, 1984), these results seem quite sensible. It is important to recall that teachers in the present study represent two groups which are best termed "moderately controlling" versus "moderately to highly autonomy-granting" in their interactions with students. Thus, what appears to be particularly facilitative of

children's social-problem-solving ability is a moderately controlling classroom atmosphere.

The above pattern of results seems quite compatible with a broad base of literature on more general socialization practices; in particular, it seems to fit well with research relating to effective parenting. Baumrind (1968, 1972) identified an "authoritative" style of parenting that was associated with greater development in children of self-confidence, independence, and achievement motivation. This parenting style was characterized by an inductive approach, in which parents used explanations and reasoning to induce good behavior, and then provided clear limits to guide children's behavior, with some choices available within those limits.

More recently, Baumrind (discussed in Maccoby & Martin, 1983) has identified two key dimensions in parental effectiveness which she has termed "demandingness" and "responsiveness." According to Baumrind, the most effective or successful parents are those who are both demanding in terms of the expectations they hold for mature child behavior (i.e., they set high standards and hold children accountable for compliance with those standards), as well as highly responsive to their children's needs. That is, they engage in bi-directional communication with their children, encouraging expression of and responding openly to their children's points of view. Maccoby and Martin (1983) refer to this pattern of parenting, incorporating strong elements of demandingness and responsiveness, as the "authoritative-reciprocal" pattern; they characterize it as one in which "children are required to be

responsive to parental demands, and parents accept a reciprocal responsibility to be as responsive as possible to their children's reasonable demands and points of view" (p. 46). Parents who are high in demandingness and responsiveness foster generally greater levels of social assertiveness, social responsibility, and cognitive competence.

This authoritative-reciprocal parenting style seems rather congruent with the "moderately controlling" response options of the Problems in Schools Questionnaire (Deci et al., 1981) used in the present study to assess teachers' control-autonomy orientations. The moderately controlling response options include relatively strong elements of teacher direction (demandingness); however, they do appear to allow for a certain degree of student input or choice in resolving the conflict.

Thus it seems fair to say that the authoritative-reciprocal pattern of parental effectiveness has much in common with the moderately controlling orientation characterizing the more "effective" teachers in the present study (i.e., those whose children demonstrated higher levels of social competence, or social-problem-solving ability). The work of D'Amato and Jordan and Tharp (cited in Lamb, Brown, & Rogoff, 1984, p. 118) further supports this notion. Here, the more effective teachers were those who were characterized as being both "nice" and "tough." D'Amato asserts that only those teachers who prove themselves as both "nice" and "tough" gain the respect and obedience of children. Being "nice" includes warm and nurturant behavior, demonstrating receptivity to children's overtures, providing help when needed, allowing

children to "win" a little, and refraining from attempts to overcontrol. The "tough" aspect of effective teacher behavior includes firm, clear, and consistent insistence on compliance with teacher directions, requests, and prescriptions for classroom conduct. As such, the "nice" and "tough" aspects of behavior described here seem to nicely parallel the dimensions of "responsiveness" and "demandingness" identified by Baumrind (see Maccoby & Martin, 1983).

The work of D'Amato and Jordan and Tharp relates to teacher practices in the Hawaiian culture. Behavioral patterns discussed in terms of teachers are parallel, at least in part, to those of the Hawaiian parent. This work seems to again support the notion that there is much to be learned from the parental-effectiveness literature in terms of understanding what patterns of teacher behavior are likely to be effective in socializing children into the student role. Given the great number of hours of contact between elementary school children and their teachers, and given that becoming well socialized to any social system involves elements of both knowing what to do and being able to do it, this overlap is not surprising.

One question of major interest in the present study was the degree of relationship between the ability to socially problem solve in one socialization domain (i.e., interpersonal) as compared with the other (i.e., task demands). Overall, social-problem-solving ability in the task demands and interpersonal socialization domains is strongly and positively correlated, with children who tend to do well in one area also performing well in the other. However, it does appear that

somewhat different student-level factors are at work in determining children's performance on the two types of social-problem-solving ability. Reading achievement is the most predictive variable in accounting for variance in children's overall social-problem-solving performance. It also is the best predictor of interpersonal-problem-solving ability. In the task demands socialization domain, however, children's knowledge of who or what controls cognitive outcomes is the best predictor of problem-solving ability. In other words, children who believe they know what controls academic outcomes--especially positive academic outcomes--are better at task demands problem solving than children who do not understand what contributes to academic performance. Thus, the key importance of the cognitive "unknown" control variable identified by Harter and Connell (1985) in relation to children's cognitive competence is at least partially mirrored here in relation to the development of children's social competence.

In considering these results, the question that immediately comes to mind is why the unknown control variable only predicts cognitive and not social "adaptability." There are several possibilities: It may be related to the fact that the focus was on positive outcomes in the two domains. In the interpersonal domain, knowledge of who or what controls <u>negative</u> outcomes may be more relevant in terms of influencing social-problem-solving ability. Support for this notion is found in Stein and Goldman (1981), who suggest, for example, that "the ability to foresee potential reasons for failing to be friendly or popular is a more important predictive factor than is the ability to list a number

of ways to be friendly" (p. 317). Thus, more comparable results across the two domains might have emerged had subjects' perceived control over negative social and positive cognitive outcomes been examined. This analysis is currently being conducted.

Alternatively, it may be that teachers, even interpersonally oriented teachers, do not assign students the same degree of responsibility for solving "problems" in the two domains. There may be a greater expectation that students will learn how to overcome difficulties in the task demands area (like how to allocate time so that assignments get completed); consequently, teachers may be more explicit in this regard, imparting information to students which is useful in resolving task-demands dilemmas. Related to this notion is Harter's (1982b) research suggesting that the cognitive and social domains are perceived quite differently, at least by young children. According to Harter (1982b), young children "do not view social acceptance by peers or mother as an arena of their life that requires skill or competence" (p. 233). If this point of view persists into middle childhood, children themselves would be less inclined to respond to teacher socialization attempts in the interpersonal domain.

Attention now turns to an examination of teacher effects on students' content knowledge in the task demands and interpersonal socialization domains, with content knowledge defined in part as a student's ability to identify other students who are models in each of the two areas. Specific teacher variables considered were teacher

socialization priority and teacher "effectiveness" in the task and interpersonal domains.

Looking first at children's content knowledge in the task demands domain, none of the teacher variables (i.e., teacher priorities, teacher effectiveness) related significantly to the ability to identify good workers in school. It is not immediately clear why no significant teacher effects on content knowledge emerged. Given Halperin's (1976) finding that teacher goal orientation (academic versus social-emotional focus) significantly related to first graders' ability to identify good and poor workers in school, the results of the present study are somewhat surprising; one might have expected that at least the teacher priority distinction would relate to the content knowledge outcome variables employed in this study. That the two effectiveness variables were inconsequential is not as surprising, particularly given the rather restricted focus of these measures (see Limitations section, below). Perhaps the lack of relationship found here relates more to the small sample size than anything else. Alternatively, it may be that the teacher measures and/or student measures included in the statistical analyses were inadequate to detect the more subtle effects teacher priorities appear to have on children's content knowledge (i.e., perceptions of rules and rationales) evident in the results of more qualitative analyses (discussed below).

Regarding interpersonal content knowledge, teacher socialization priority and teacher effectiveness in the interpersonal domain were again nonsignificant predictors. However, growth in task-related outcome measures (task demands effectiveness) was related to knowledge of "who gets along well" in school. Children in high TD-growth classrooms are better able to identify kids who get along well in school than are children in classrooms where less-than-expected task-related growth occurs. Perhaps in classrooms where good work habits and skills are being acquired, a more narrowly defined view of what it means to get along well with others is also promulgated, thus increasing the likelihood that the "message" gets through to students. In other words, in classrooms where teachers are particularly effective in promoting task demands socialization, getting along may mean "working together cooperatively"; more opportunity to practice and receive feedback about this aspect of social interaction may be provided by teachers in these kinds of classrooms, and this could account for the relationship which was obtained.

Partial support for the hypothesized link between a work orientation and "getting along" can be found in a case study analysis of ten elementary classrooms conducted by Mitman and her colleagues (Mitman, Mergendoller, Ward, & Tikunoff, 1981). Her research indicates that successful cooperative behavior occurs more often when teachers clearly indicate who is to work together and exactly what is to be accomplished. It should also be noted that children in their interviews, when describing well-socialized classmates in the interpersonal domain,

quite frequently made use of information relating to work characteristics such as academic helpfulness; they also focused on nondisruptive behavior, suggesting that this notion of cooperative co-worker plays a part in determining who gets nominated as one who gets along really well with others in school. In sum, one may speculate that in classrooms where greater-than-expected growth in task demands outcomes is evidenced, the opportunities for interaction relate almost entirely to work activities. In this situation regulated, cooperative work behavior becomes especially salient in determining students' understanding of who "gets along well."

Summarizing to this point, several significant findings have emerged. First, teacher control orientation appears to be an important predictor of process knowledge outcomes (i.e., social-problem-solving ability), particularly in the task demands domain. Teacher "effectiveness" in the task domain has been shown to relate to children's content knowledge (i.e., the ability to identify well-socialized students), at least in the interpersonal realm. At the student level, "control" again surfaces as an important factor; thus, student knowledge regarding control over positive cognitive outcomes significantly predicts children's ability to problem solve in the task demands socialization domain. Possible explanations for each of these results have been discussed.

What, in general, does this pattern of results suggest? Assuming that the significant teacher variables of control and task-demands effectiveness reflect to some degree actual classroom "structure"

(i.e., the extent to which teachers are directive, prescriptive, firm, and consistent in their interactions with students), it is possible to draw some tentative conclusions regarding what type of classroom atmosphere produces optimal socialization into the student role. The results clearly suggest that a somewhat more controlling, task-oriented classroom focus is facilitative of socialization into the student role, at least in terms of the specific outcome variables included in the present study. It may be that the relative predictability of the more controlling or more formal environment, as compared to more autonomy-granting, less formal classrooms, is what is helpful to students as they strive to grapple with everyday classroom problem situations, particularly in the task demands domain. A more predictable environment should enhance children's sense of control, which in turn affects the ways in which they approach dilemmas of everyday classroom life. This makes sense when considered in conjunction with what is known about socialization in general: Knowledge of what is expected, as well as of what influences or controls the outcome of events, generally enhances adaptation to the environment.

Support for the notion that classroom structure bears impact on socialization processes is found in Blumenfeld, Hamilton, Bossert, Wessels, and Meece (1982). Blumenfeld et al. studied teacher talk and student thought in relation to elementary school children's socialization into the student role. Included in their studies were classrooms which differed with regard to classroom structure; here the term "structure" refers primarily to task structure, or the different

patterns of activity teachers engaged in with their students (e.g., recitation versus multitask structure). They found that differences in classroom structure led to differences in the types of messages directed by teachers toward students. For example, predominant concerns in least structured rooms were academic-procedural in nature (e.g., assigning students to work groups); in contrast, a central focus in the most structured classrooms involved in the study were issues relating to social procedure (e.g., talking). Further differences in the kind of information imparted by teachers (i.e., explanations, attributions, or sanctions) were also observed to vary by task structure. Blumenfeld et al. (1982) concluded that, overall, the task structure of the classroom does influence the content of teacher communication about the student role. Further evidence regarding the importance of classroom task structure is found in two studies (Filby & Barnett, 1982; Rosenholtz & Wilson, 1980), the results of which suggest that task structure significantly relates to students' degree of consensus regarding peers' abilities.

A particularly interesting finding in the Blumenfeld et al. (1982) study is the fact that teacher communication, overall, was somewhat more positive in those classes categorized as moderately structured. One is tempted to consider how this finding might relate to that of the present study, where teachers evidencing a moderately controlling orientation toward interactions with students were found to be most effective with regard to promoting social process knowledge outcomes in students.

Classroom structure is certainly an important context variable, and as such requires attention when considering classroom socialization processes and outcomes. Weinstein (1983), in an excellent review of the student-perceptions literature relating to schooling, stresses the necessity to focus on classroom context variables when examining students' social perceptions. She points to the fact that

> classroom context differences have been found to be related to differences in student perceptions and understanding of classroom life. . . . How the classroom context might influence the content and possibly the structure of children's thinking needs to be more thoroughly investigated. Because of the differences in their structure and processes, classrooms may produce different socio-cognitive outcomes in students. (pp. 304-305)

The results of the present investigation indicating an important link between teachers' control orientation and students' social process knowledge would definitely seem to support what Weinstein (1983) has said.

To this point, only results deriving from statistical analyses conducted as tests of the six major hypotheses of this investigation have been discussed. An examination of the results of more qualitative analyses performed to tease out more subtle aspects of classroom socialization processes is now in order. Only one teacher variable was considered throughout the qualitative analyses, that being teacher socialization priority. This variable was considered in relation to children's content knowledge, or perceptions of rules, norms, and standards for classroom conduct, as well as their understanding of the rationales for such behavioral parameters.

Although the results of quantitative analyses suggest that teachers' socialization priority systems do not significantly relate to children's socialization into the student role, results of more qualitative analyses indicate that this may not be the case as far as certain kinds of knowledge are concerned. Close examination of student interview responses points to an important relationship between the types of norms and standards emphasized, the types of rationales given for norms and standards, and teachers' socialization priority (interpersonal versus task demands focus).

Briefly, children in interpersonal classrooms evidence more concern about social and abstract norms, while children in task demands classrooms tend to stress more nonsocial, concrete behaviors. That there were differences in the types of norms emphasized is congruent with results of other student interview research. For example, Halperin (1976) interviewed first-grade students regarding their perceptions of classroom rules. As with the present study, Halperin found that children in different types of classrooms (i.e., strict versus permissive) did not differ significantly in terms of the numbers of rules reported. However, qualitative differences in the content of the rules reported were evident. Children in strict classrooms tended to discuss what Halperin calls restricted action rules, or rules relating to teacher control of behavior. Significantly fewer rules of this sort were mentioned by children in permissive classrooms. Halperin reports that other differences in terms of rule content were also evident. Together, the results of Halperin's (1976) work, along with

those of the present study, suggest that teachers' orientations or priorities certainly do affect students' understanding of the normative structure of the classroom environment.

Despite the differences in types of norms stressed by children in task demands and interpersonal classrooms, it seems important to note that across all classrooms, procedural issues dominated students' rule perceptions. Blumenfeld et al. (1982) found that, with regard to teacher talk, the vast majority of all classroom communication is procedural in nature. This finding holds even when only those communications imparting socialization information are considered. A similar finding is found in Anderson (1981). Thus, it is not too surprising that students' most prevalent response in reporting classroom rules relates to procedural issues. It is when one looks within the procedural rule domain, as well as within interpersonal and task domains, that the differential perceptions regarding classroom norm structure described above are found.

Consistent with the differential emphasis given to types of classroom norms and standards, interesting differences emerged in the present study relating to the kinds of rationales stressed by children in the two types of classrooms when discussing norms and standards. Overall, children in interpersonal classrooms provided more "social" rationales, evidencing great concern for the effect of behavioral conduct on members of the classroom group other than themselves. In contrast, children in task demands classrooms focused primarily on "authoritarian-moralistic" rationales. Also, extrinsic consequences

for behavior appear to be more salient in task demands classrooms, where statements of extrinsic consequence occurred twice as often as compared to the group of children in interpersonal classrooms.

It seems reasonable to assume that what children perceive to be the norms and standards for classroom behavior is fairly congruent with "reality," or the actual rule structure of the classroom environment. Although Winne and Marx (1982) have noted that mismatches between teacher intent and student perceptions of intent sometimes occur, teachers in the present study felt that their students were remarkably accurate in their perceptions of classroom rules. If this is so, it seems quite likely that children's perceived rationales for norms and standards are also fairly reflective of those actually stressed by classroom teachers. (Student perceptions of rationales are important to examine as they reveal more about the student's larger "social cognitive structure" within which rule knowledge is located.) To state this definitively would require a look at what teachers actually provide as rationales or consequences for behavioral (non)compliance. Such analyses are beyond the scope of this report, although they are underway, as a part of the broader study of which this is a part (see, for example, Bird, Anderson, & Prawat, 1985).

Further differences in children's perceptions relating to classroom socialization issues were found; these are presented in Chapter 4 of this report. The distinctions of major significance, however, have been discussed above. To summarize, the qualitative analyses strongly suggest that teacher socialization priority <u>is</u> an

important factor to consider in relation to children's socialization into the student role. This is so particularly in terms of the understanding children have of the normative structure within their classrooms. It appears that a more social orientation, overall, is evident among children in interpersonal as compared to task demands classrooms. The fact that children in interpersonal classrooms were more likely than their counterparts in task demands classrooms to incorporate social information in their descriptions of well-socialized students further supports this distinction. A profile emerges for task demands classrooms which is more nonsocial and, in a sense, "controlling," particularly if the emphasis on "authoritative-moralistic" rationales and application of extrinsic consequences for behavioral conduct is considered. In fact, three of the four teachers in the task demands socialization priority group were also included in the "moderately controlling" orientation group, as assessed by the Deci et al. (1981) measure.

This overlap, between teacher socialization priority on the one hand, and teacher control orientation on the other, is an important issue to consider in viewing the findings of this thesis. One is compelled to consider with what degree of sensibility findings relating to one of these two teacher variables can be considered apart from the influence of the other. Given the small sample size (eight classrooms overall) in the present study, this is a particularly disconcerting issue. However, at least one other study suggests that teachers' goal and control orientations can be considered somewhat independently of

one another. Halperin (1976) found that first-grade teachers' goal orientations (academic versus social-emotional focus) were not necessarily linked to control orientation (strict versus permissive) in the manner one might logically expect. Thus, in her sample she found teachers who were academic-strict, academic-permissive, social/emotional-strict, and social/emotional-permissive. The academic-permissive and the social/emotional-strict teacher types came as somewhat of a surprise. However, Halperin's findings do suggest that it may be reasonable to consider goal and control orientations somewhat separately in relation to student perceptions of classroom life. Certainly, this must be done with caution, particularly given the degree of overlap found to exist in the present study. Proceeding then with caution, it appears that issues of teacher control orientation and teacher socialization priority contribute somewhat differently to an understanding of children's socialization into the elementary school student role. Teacher socialization priority appears to contribute more to differential student perceptions of classroom norm structures (i.e., differences in content knowledge), while teachers' control orientation is more important in terms of children's process knowledge outcomes (i.e., social-problem-solving ability).

Why teacher socialization priority does not relate to student problem-solving ability in the task demands and interpersonal domains is a puzzle. It may be that the process knowledge variable used in this study is inadequate as a measure of social-problem-solving ability; however, a number of studies support the validity of the MEPS

instrument for this purpose. Alternatively, these results may be attributable to the fact that there is a big difference between students simply being aware of rules and standards and actually being able to use this information to guide their behavior in the classroom. Getting students to understand what is expected of them may be a necessary but not sufficient condition as far as socialization is concerned. Assuming this perspective, it makes sense that teacher socialization priority impacts on the kind of normative information available to students as indicated by the qualitative analyses; the ability to apply this information, on the other hand, at least in the task demands area, should logically relate more to "process" oriented teacher measures such as Deci et al.'s control/autonomy instrument. In other words, the Deci et al. measure may tap a dimension of teaching that is more germane to instructional effectiveness, while the Teacher Priorities Questionnaire may relate more to the kind of information teachers choose to make available to students.

Summary and Conclusions

Classroom socialization is a rich and complex aspect of the schooling process. The present study represents one attempt among many to add to the sketchy knowledge base which currently exists regarding children's socialization into the elementary school student role. Teachers, no doubt, play a key role in this socialization process. A firm commitment to the notion that student cognitions and perceptions mediate the effects of teacher behavior led to the focus on student interview data in the present study. Through an examination of both

teacher- and student-level variables believed to be important in terms of influencing children's understanding of the social world of the classroom, the goal was to add to our understanding of how classroom socialization processes unfold. It is felt that this goal has been met.

The results of this study lead to the following general conclusions:

First, the specific socialization goals teachers hold for their students appear to contribute considerably to students' social understanding or knowledge relating to the normative structure of the classroom "mini-society."

Second, the degree to which teachers are controlling versus autonomy-granting in their orientation toward communicating with students significantly relates to students' ability to conceive of ways to resolve everyday social dilemmas of classroom life. In particular, it is the moderately controlling orientation which is most effective in this regard.

Third, it appears as though student understanding of what contributes to the outcome of events relates to their ways of thinking adaptively about how to face future similar events.

It must be stressed, particularly given the limited sample size of the study, as well as the absence of actual classroom process data, that these conclusions are to be considered tentative in nature.

As Weinstein (1983) has suggested, the process of integrating the findings of student perception studies is difficult, at best. This is

due to several factors relating to (a) the sheer volume of the literature, (b) the uneven quality of the research, and (c) the extreme variation in the purposes of the investigations. However, a certain degree of congruence between the present findings and results of other relevant research seems evident; the previous discussion has served to illustrate the linkages which can be established.

Although by no means providing a definitive picture of the way in which classroom socialization proceeds, one can speculate--based on the present findings--about what certain "effective" elements of classroom socialization practices might be. First and foremost, it appears that teachers might do well to act, at least in certain ways, as do effective parents. That is to say, the critical elements of the "authoritative-reciprocal" parenting style (i.e., demandingness and responsiveness; see Maccoby & Martin, 1983) would seem likely to maximize optimal socialization outcomes for students in classrooms. Thus, a fairly direct and prescriptive teacher approach to communicating classroom standards, combined with a firm insistence on students meeting those standards, should provide students with a predictable and understandable environment in which to function. Furthermore, allowing for a certain degree of student input and choice in determining ways to meet classroom standards should prove beneficial in terms of promoting self-regulatory student behavior which is in compliance with teacher expectations for classroom conduct.

Analyses of actual classroom process data conducted as part of the larger Socialization Outcomes Project suggest, in fact, that the two

key elements in effective teacher socialization practices are (a) the provision and structuring of information about the classroom environment and about children's roles as participants in that environment, and (b) the provision of opportunities for students to practice self-regulation (Anderson, 1985; Anderson & Prawat et al., 1985). These elements of teacher behavior should lead to improvements in student understanding of who or what controls the outcome of events; this student "knowledge of control" variable has been shown to be an integral aspect of the socialization process. Thus, it seems that what is suggested here by the results of the present study is further amplified when actual classroom process data are considered.

All of the above is speculative, of course, particularly in light of the limited number of classrooms involved in the study. Nevertheless, the study presented here does raise several important issues that are worthy of further consideration. As analyses continue, looking at a second year of student interview data as well as a vast array of classroom process data and individual student observation data available through the Socialization Outcomes Project, it will be possible to paint a more definitive view of how socialization in classrooms proceeds, as well as to identify particularly effective socializing practices.

Limitations of the Study

It must be noted that this study relies primarily on interview data, along with written measures of a variety of student and

teacher-level variables. For the time being, it is necessary in thinking about the findings discussed in this report to bear in mind that certain speculations regarding actual teacher behavior in the classroom are as yet unsubstantiated. However, other research (discussed earlier in this chapter) does indicate that there is a relationship between teacher goal and control orientations on the one hand, and actual teacher behavior on the other (see, for example, Deci et al., 1981; Halperin, 1976). Also, assumptions about the extent to which student perceptions reflect teachers' behavior in the classroom, at least as it relates to classroom norm structures, are supported by the generally high degree of agreement between students and teachers regarding actual classroom rules. Thus, it is felt that no unlikely or unreasonable assumptions have been made in the interpretation of results, with those that have been made guided by past as well as present research.

A further limitation of this study lies in the types of measures used to assess certain outcomes. In particular, a word of caution is in order regarding the teacher-level interpersonal "effectiveness" (IP-EFF) measure. Although no significant relationships were found in conjunction with this measure, it may be premature to say that the degree of interpersonally related growth evident in classrooms (i.e., teacher effectiveness in the interpersonal domain) has no impact on student-level socialization outcomes (e.g., social-problem-solving ability). This is because there are certain problems associated with the IP-EFF measure used in this study. The components involved on this factor scale were empirically derived (through factor analytic

techniques) and as such were severely limited, with race bias being the central measure of teacher effectiveness in the interpersonal domain. Although reduction of racial bias is certainly important, it does not fully represent interpersonal "effectiveness." (The overall quality, as compared to mere quantity, of relationships between students in the classroom is not accounted for. In other words, in a classroom where students show equal dislike for students of each racial group, the bias score would be the same as in one where students are generally positive toward one another without differentiating between racial groups in friendship selections.)

In addition, other factors not included in the empirically derived factor scale seem logically related to issues of interpersonal effectiveness. Subsequent to the analyses performed for this dissertation, project staff worked to develop factor scales based on logical and theoretical analyses (both in the task and interpersonal domains), which seemed to better capture teacher "effectiveness" dimensions related to classroom socialization processes. For example, in the social domain, variables measuring change in students' sense of control over social outcomes, as well as in their perceived social competence, were added to the "effectiveness" scale. It was felt that these logically derived factor scales would more adequately assess teacher effectiveness in the socialization domains than did the more restricted, empirically derived scales. Analyses reported in Prawat (1985) and L. Anderson (1985) support this notion. Further information regarding the development and application of the empirically versus logically/

theoretically derived effectiveness scales is found in Anderson and Prawat et al. (1985).

It must also be noted that while the task and interpersonal effectiveness measures employed in this study are cast as indicators of teacher effectiveness, the term effectiveness is used advisedly. Although the teacher is considered to be a major socializing influence, other factors (e.g., school context factors such as cluster versus neighborhood school) undoubtedly also contribute to change in student socialization outcomes.

A word of caution is also in order regarding the social-problem-solving measure employed in this study. As analyzed, only frequency of response (i.e., numbers of means, obstacles, and time indications) was considered in determining level of social-problem-solving ability. Although student protocols were coded for content of response as well (i.e., the exact nature of specific means and obstacles incorporated in student responses was identified and coded; see Appendix B), these data have not yet been examined. This leaves unanswered questions such as how prosocial, or how appropriate or facilitative responses actually were. While the scoring criteria used in this study followed those of the developers of the original problem-solving measure (Spivack et al., 1981), one wonders what more might be added to the total socialization picture when the actual content of subject responses is considered. Such analyses are currently underway.

Regarding the sample, it was noted earlier that children in the two types of classrooms represented in the study differed slightly in

age, with those in task demands classrooms having a mean age 6 months greater than those in interpersonal classrooms. Thus, any findings which relate to the teacher socialization priority distinction must be considered in conjunction with possible maturity-level differences. This means that, in particular, the results of qualitative analyses which point to teacher priority-related influences on students' content knowledge could be partially attributed to age-level differences. Given the nature of the observed differences in student perceptions, it seems unlikely that the 6-month age differential is the sole accountable factor: Children in interpersonal classrooms (the younger age group) evidenced a more social orientation overall (both in terms of norm and rationale responses) than did their task demands counterparts. One would expect the social orientation to be more prevalent among <u>older</u> children, if anything. Therefore, it is felt that differences obtained in children's content knowledge which relate to teacher socialization priority are not attributable to age-level differences alone.

In terms of the statistical analyses performed on the present data base, it is important to bear in mind that, particularly given the small sample size, the results obtained here might not be replicated on subsequent samples of subjects. Thus, conclusions drawn here will be able to be stated with more certainty if results are replicated when the data of the present investigation are combined with a second year of student interview data gathered in conjunction with the larger Socialization Outcomes Project.

Finally, due to the nonrandom selection of subjects, it must be remembered that generalization of the results of this study is limited to populations of students (and teachers) who are like in kind to the present sample.

Recommendations for Future Research

In light of the results obtained in the present investigation, it appears that the area of classroom socialization is one which definitely merits further study. In particular, it seems that relationships between (a) teachers' goal orientations, (b) teachers' control orientations, and (c) students' social (content and process) knowledge require further assessment. The incorporation of actual classroom observation data is advised to more accurately determine relationships between teacher and student verbal report data.

Based on certain difficulties encountered in the analyses of student interview data, it seems advisable to focus carefully on this aspect of subsequent studies of student perceptions, with careful attention given to determining what kinds of questions or probes will work best to "pull out" the information of interest. For example, more direct questions regarding students' conceptions of what it means to be a good worker, or one who gets along well with others in school (e.g., "What do you think it means to be a 'good worker' in school?" or "What do you have to do to be a good worker in school?"), might work better than those used in the present study. Asking children to discuss their ideas about how one becomes well socialized in school (e.g., "Are children born that way? Or does something happen to make them that

way?") might likewise prove to be informative regarding differential perceptions of classroom socialization processes. Asking questions such as these of students at different grade levels might shed some light on developmental differences in children's conceptions of the student role. A longitudinal design, following children through several years of schooling, would be even better in this regard.

An important question yet to be answered concerns the relationship between students' social knowledge and overt behavioral adjustment in school. Although teachers' ratings of adjustment in the interpersonal and task demands socialization domains did not relate to student-level social knowledge variables in the present study, such student variables may not be inconsequential in determining behavioral adjustment in the classroom. There is a need for examining overt behavioral adjustment in relationship to students' knowledge of classroom socialization processes. It seems more likely that it is the method of assessment used in the present study (teacher ratings) which accounts for the lack of relationship found between social adjustment and social knowledge, rather than an actual absence of such a relationship. Perhaps observational measures of behavioral adjustment would provide a reasonable alternative method of assessing the major relationships of interest.

In sum, while in this study certain relationships between teacher and student-level variables have emerged as important in terms of children's socialization into the student role, there is a need for further research to reinforce and expand upon the present findings. It has often been said that the ultimate value of a research endeavor lies

in the questions raised and the avenues opened for further investigation. As well as pointing toward certain relationships which affect classroom socialization processes, this study raised important questions and pointed the way toward possible future research endeavors. In this way, the present investigation added a little to our knowledge base regarding an important, albeit little understood process: children's socialization into the elementary school student role.

APPENDICES

APPENDIX A

STUDENT INTERVIEW

Student Perceptions Interview

Warm-up:

Hi (subject's first name) (use subject's name occasionally throughout the interview -- it helps kids relax).

My name is _____. I work at Michigan State University. I do research there. In our research we try to find out what goes on in schools and what makes teachers super. This way, when people come to MSU to learn how to be teachers, we can do a better job of training them.

We consider you to be an expert who can tell us what school is all about. We have interviewed lots and lots of kids about school and most of them really think its fun to answer our questions. We have six different types of things to ask you about. Some kids take about 20 minutes to answer our questions, but others take a little longer to think about their answers, so it takes them a bit longer, which is just fine with us.

I want you to know that there are no right or wrong answers to any of the questions I'm going to ask you. Also, I won't be telling anyone else what you say here...not your teacher, your parents, or your classmates. Only myself and one or two other researchers at MSU will ever know what you said.

You can feel free to tell me what you really think, and that will help us with our research.

Do you have any questions? OK, I'll show you the tape recorder that we'll be using today. Let's see if it picks up your voice and mine, and then we'll be ready to start.

SAY TO SUBJECT:

The first thing I'd like to talk about is what kinds of rules there are in Mrs. T.'s classroom. Now, I know that most teachers have certain rules they want everyone to follow. Sometimes these rules are made at the very beginning of the school year, and sometimes other rules are made after the beginning of school. Some teachers make up all the rules by themselves, and sometimes the kids help make the rules. Now, I want you to think carefully and then tell me:

A-1 What are the rules in Mrs. T.'s classroom? Tell me as many as you know.

Probe:	If subject lists zero or one rule.	"Take some time to think about it."
	If no response.	"What rules did Mrs. T talk about at the beginning of the year?"
		"What other rules has Mrs. T talked about since the beginning of the year?"
	(ALL) When subject appears to be done.	"What other rules can you think of?"

A-2 Now, of all the rules you just mentioned, which is the very most important one of all?

Probe:	If no response.	"Take some time to think about it. What do you think is the most important rule in Mrs. T.'s class?"
	If subject asks "...most important to whom?"	"I want to know what you think (is most important)."

A-3 Why is (state rule) so important?

or

Why is it so important (not) to (state rule)?

Probe:	If no response.	"Take some time to think about it. Why do you think (state rule) is so important?" or "Why do you think it is so important to (state rule)?"
	If no response.	"Take a guess."

SAY TO SUBJECT:

OK, now I want to talk about something different. I know that, in school, some kids are better workers than others. I want you to think carefully, and then tell me:

B-1 What are the names of the really good workers in Mrs. T.'s class?

Probe: If fewer than 3 nominees are given. "Who are the other really good workers in your class?"

(Use this probe only once. If less than three nominees are given after probing, adjust item B-2 accordingly.)

SAY TO SUBJECT:

Now let's talk about some of these people you've mentioned as being really good workers.

B-2 Why is __*__ such a good worker?

(* Repeat this question 3 times, inserting the names of the subject's first, second and third nominees. If subject lists self among top three nominees, use first four nominees.)

Probe: If no response. "Take some time to think about it. Why do you think _____ is such a good worker?"

Probe: (contd.)	If subject persists in offering only global or generalized rationales. (For example, subject says: "He really does good work."	
	or	
	If response seems irrelevant to characteristics of good workers. (For example, subject says: "He knows his math..He knows his times tables..."	"What does _____ do or say that shows what a good worker s/he is?"
	or	
		"What does _____ do or say that makes him/her such a good worker?"
	If necessary, to get specifics.	"Give me an example of something you've seen _____ do or say that shows what a good worker s/he is."
	(ALL) When subject appears to be done.	"Anything else?"
	(Repeat this for each nominee. Use matter-of-fact voice.)	

SAY TO SUBJECT:

OK, let's talk about something else. I know that, in school, there are some kids who get along really well with just about all the other kids in class, and there are other kids who don't get along so well with their classmates. I want you to think carefully and then tell me:

C-1 What are the names of the kids in your class who really get along well with the other kids?

Probe: If fewer than 3 nominees are given. "What other kids in your class get along really well with everyone else?"

(Use this probe only once. If less than three nominees are given after probing, adjust item C-2 accordingly.)

SAY TO SUBJECT:

Now let's talk about some of these people you said get along so well with the other kids in your class.

C-2 Why does ___*___ get along so well with the other kids?

(* Repeat this question 3 times, inserting the names of the subject's first, second and third nominees. If subject lists self among top three nominees, use first four nominees.)

Probe: If no response. "Take some time to think about it. Why do you think _____ gets along so well with the other kids?"

Probe: (contd.)	If subject persists in offering only <u>global</u> or <u>generalized</u> rationales. (For example, subject says: "He's nice to other kids...he does nice things..."	"What does _____ do or say that is so nice?" or "What does _____ do or say that makes him/her get along so well with other kids?"
	If necessary, to get specifics.	"Give me an example of something you've seen (heard) _____ do (say) that is so nice." or "Give me an example of something you've seen (heard) _____ do (say) that makes him/her get slong so well with the other kids."
	(ALL) When subject appears to be done. (Repeat this for each nominee. Use matter-of-fact voice.)	"Anything else?"

Open-Middle Stories: Instructions for Administration

SAY TO SUBJECT:

The next thing we're going to do is kind of like a game. What you are going to do is make up some stories and I'm going to help you. I will tell you the beginning of each story and the ending of each story. You will make up the middle part. In other words, you make up what happens in between the beginning of the story I will give you and the end of the story I will give you. Altogether there are 4 stories we are going to do.

Now remember, there are no right or wrong ways to tell the stories. I just want to hear your stories, just the way you make them up. I'll write the story down as you tell it to me. Be sure and tell me everything about the story that comes into your head, OK?

	SAY	DO
1.	Here's story #1. *	(Open booklet to story #1.)
2.	Here's the beginning of the story:	(Read verbatim from booklet.)
3.	Here's how the story ends:	(Read verbatim from booklet.)
4.	OK, I just told you how the story ends. I'd like you to repeat the ending I just gave you. How did I say the story ends?	(Elicit response. If subject has difficulty responding, repeat ending and then elicit response.)
5.	That's fine. Now, the whole middle part of this story is missing! I don't know anything that happens between the time (paraphrase beginning) and the time (paraphrase ending). That middle part is what I want you to make up.	(Flip pages in booklet to illustrate the point..run hand over empty space between beginning and end of story.)

SAY	DO
6. Make up a really <u>good</u> story. Pretend you are telling the story to your little brother or sister, or maybe to a little kindergartener.	(Watch subject for signs of confusion.)
7. Remember, the story begins with:	(Read verbatim from booklet.)
8. Now what happens? Start your story.	(Record subject's story in subject's packet..this is <u>not</u> a verbatim record.. just jot down a few words...)

Probe:	Only if subject begins by listing discrete alternative solutions.	Just redirect the subject to tell a <u>story</u>, like s/he was watching a movie — everything that happens from the time (<u>repeat beginning of story</u>) to (<u>repeat end of story</u>).

(*) Repeat procedure for each of the four stories. Where indicated, ALWAYS READ VERBATIM. Steps 5 and 6 may be abbreviated as subject appears to become familiar with the process. If subject is really doing well (no trouble telling stories; meeting task requirements just fine), gradually eliminate use of booklet. Do this especially if subject gives some indication of feeling "talked down to".

IP-1 ID# _____ Form M

Al had just moved into the neighborhood. He didn't know anyone and felt very lonely. He wanted to have friends.

The story ends with Al having many good friends and feeling at home in the neighborhood. How does the story end? With his having many good _____.

Make up a really good story. Try to fill up the whole page. The story begins with Al in a new neighborhood wanting to make new friends. Now what happens? Start your story.

Form M

TD-1 ID# _____

Today Frank's teacher has given the class a math assignment. Frank doesn't know what to do and he is afraid if he starts he won't do it right. Frank wants to know what to do so he can get right to work.

The story ends with Frank knowing what to do and getting right to work. How does the story end? With him _____.

Make up a really good story. Try to fill up the whole page. The story begins with Frank not knowing what to do; he is afraid to start work. Now what happens? Start your story.

IP-2 ID# _____ Form M

It's recess time, and Johnny wants to play with his friends on the playground. His friends are all playing ball, but they won't let him play. Johnny feels very sad because he really wants to play with his friends.

The story ends with Johnny feeling really happy because he is playing ball with his friends. How does the story end? With Johnny _____.

Make up a really good story. Try to fill up the whole page. The story begins with Johnny feeling sad because his friends won't let him play ball. Now what happens? Start your story.

TD-2 ID# _____ Form M

Rick is pretty smart but he has a lot of trouble getting his work done on time. Most of the time he has to use recess to finish up his assignments. Rick wishes he could finish his work on time so he could play during recess.

The story ends with Rick getting his work done on time and being able to play during recess. How does the story end? With him being able to _____.

Make up a really good story. Try to fill up the whole page. The story begins with Rick wanting to finish his work on time so he can play during recess. Now what happens? Start your story.

SAY TO SUBJECT:

That was fun! I really enjoyed hearing your stories. Now I'd like to ask you about something different. I want you to pretend that...

P-1 (Read through P-1 in subject's packet. Circle subject's response.)

Probe: Probe if subject can't decide. "Who do you think Mrs. T. would most like to have in her class, _____ or _____?"

P-2 Why would Mrs. T. choose _____ instead of _____?

Probe: If no response. "Take some time to think. Why would Mrs. T. rather have _____ join your class?"

If there is still no response. "Take a guess."

P-3 (Read through P-3 in subject's packet. Circle subject's response.)

Probe: If subject can't decide. "Who would you really like to have in your class, _____ or _____?"

P-4 Why would you choose _____ instead of _____?

Probe: If no response. "Take some time to think. Why would you rather have _____ join your class?"

If there is still no response. "Take a guess."

Form M-2

ID# _____

Two new kids, John and Tom, are entering your school.

John gets along really well with others but is not a really good worker.	Tom is a really good worker, but doesn't get along too well with other kids.

P-1 Your teacher can choose either Tom OR John to be in your class. Who would your teacher choose?

John (who gets along so well) OR Tom (the really good worker)

P-3 If you could choose either Tom OR John to be a new member of your class, who would you choose?

John (who gets along so well) OR Tom (the really good worker)

SAY TO SUBJECT:

I have one last thing I want to ask you about. I know that, in school, there are things you are supposed to do, and things you are not supposed to do. I want you to think very carefully and then tell me:

A-4 What is the worst thing a kid can do in Mrs. T.'s class?

Probe:	If multiple response.	"Of the things you just mentioned, which one thing is the very worst thing you could do in Mrs. T.'s class?"
	If no response.	"What do you think is the very worst thing a kid could do in Mrs. T.'s class?"
	If still no response.	"Take a guess."

SAY TO SUBJECT:

OK, so you said the worst thing a kid could do in Mrs. T.'s class is (state worst thing). Now tell me:

A-5 Why is that so bad?

Probe:	If no response.	"Why do you think it is so bad to (state worst thing)?"
	If still no response.	"Take a guess."

SAY TO SUBJECT:

OK, now I also know that each teacher has certain things that she really likes kids to do...certain things that make her feel really happy. I want you to think for a minute about all the kinds of things kids do in Mrs. T.'s classroom, and then tell me:

A-6 When you think about all the things you do in Mrs. T.'s class, what is the one thing you could do that would make Mrs. T. really happy?

Probe:	If multiple responses are given.	"Of all the things you just mentioned, which one thing would make Mrs. T. the very happiest?"
	If still no response.	"What do you think is the one thing you could do in class to make Mrs. T. really happy?"
	If still no response.	"Take a guess."

SAY TO SUBJECT:

OK, so you said the thing that would make Mrs. T. the very happiest is (state happiest thing). Now tell me:

A-7 Why would that make Mrs. T. so very happy?

Probe:	If no response.	"Why do you think Mrs. T. would be so happy if you (state happiest thing)?"
	If still no response.	"Take a guess."

APPENDIX B

CODING SYSTEMS

Means-Ends Problem-Solving Stories

Rules, Worst/Happiest Things

Characteristics of Good Workers

Characteristics of Kids Who Get Along Well

Who Is Chosen?

Student Perceptions Interview
July 25, 1983
MEPS Stories

SCORING PROCEDURES AND DEFINITION OF TERMS

A. Read entire story: Each story can be scored for:

...means
...enumerations of means
...obstacles
...enumerations of obstacles
...time
...story content

B. Means-ends score: A child's total means-ends score is composed of the number of means stated toward a given story goal, the number of obstacles that might be encountered on the way to that goal, and the number of indications of time taken to reach the goal.

C. Scoring for Means:

1. A mean is a discrete step that enables the story protagonist to get closer to the story goal...means in a story are sequenced steps.

2. A mean may be a detail of a plan or a more general concept.

...If a concept mean is given, followed by details of the concept mean, then do not score concept, only details.
...When the strategy involves one plan with several steps within that plan, credit is given for each step.
...When statements of different plans are used, whether or not step-by-step elaboration is offered, credit is given for each different plan.

(NOTE: If plan A leads to resolution of the goal, STOP...do not score any portions of the story which follow goal attainment. If, however, plan A is blocked by an obstacle and the subject then details a plan B which leads toward goal attainment, score for each plan.)

3. A mean is usually a purposeful action taken by someone, rather than a mere circumstance that is not involved with the intent to reach the goal.

4. A mean (action) may be initiated by the story protagonist or by other story characters.

   ...If the protagonist and an "other" both do the same thing (such as introduce self), score only once.

5. A personality quality may be a mean (such as being nice) even though no action is taken, if the quality is relevant to achieving the goal.

   ...Only two such qualities are allowed per story.

6. If a story with a scorable mean is given, but at the end it is not clear that the exact stated goal is achieved, the story may be accepted.

   ...If the goal is not achieved (perhaps a substitute goal is introduced), only means to achieve the goal as given are scored.

7. Enumerations (repetitions of previously stated means) are not scored. Score each specific mean once only.

8. Specific statements about planning, or thinking about a plan, are scored:

   ...Only a score of 1 per story.
   ...Only scored if story about executing the plan follows.
   ...What is significant here is evidence of thought, followed by an attempt to execute the plan.

9. Be careful to distinguish a mere restatement of the goal from a true means to achieve that goal.

10. If the respondent continues to list alternatives after an attempt is made to redirect him/her, a score of 1 is given.

11. When options are given within the story (e.g., he could do ____ or ____) these can be scored separately as means only when there is sufficient indication within the story that the student knows how to follow through each mean to obtain the goal.

12. Don't infer actions. Steps must be actually taken to be scored as means. (Exception: personality characteristics.)

D. Scoring for Obstacles:

1. An obstacle is an actual or potential interference with goal attainment. An obstacle almost always changes the direction of the plan for goal attainment, however, the obstacle is scored even if no mean to overcome that obstacle is given.

2. An obstacle may be internal (too shy) or external (someone breaks up a fight).

3. An obstacle is scored even if no scorable means are given.

4. Obstacles should not be inferred from vague statements.

5. Potential obstacles include what might happen but hasn't yet, or obstacles that would happen in the future.

6. If an obstacle leads to the failure of the protagonist to resolve the story, and the protagonist moves to a new plan, the scores for new means are added to those of the previous plan (along with obstacle score) if the new plan is different from (not an enumeration of) the old one. If the new plan is an enumeration, use the larger story score.

E. Scoring for Time:

1. Time is scored when specific reference to time is used:

...3 days later
...after a week

2. Time is not scored when common expressions in our vernacular are used:

...the next day
...Exception: care must be taken to determine what the subject is trying to communicate. If, for example, s/he says "the next day he did ___, and the next day he did ____, and the next day...", it is likely that the subject realizes the need for a certain amount of effort expenditure over time to achieve the goal. Use of the phrase "the next day" in the fashion outlined here would result in a score of one (1) for time. In general, if the subject begins a story with "the next day...", sufficient evidence of an awareness of the

importance of time in goal attainment is not present to warrant scoring for time.

3. Time is scored when protagonist waits for a propitious occasion.

4. References to time passage ("when he got to know them better") are scored.

F. Subtleties of Scoring:

1. No score is given for thoughts/actions that occur after the goal is reached.

2. If the goal is summarized before the story begins, then score the story.

3. Only different means, obstacles and use of time are scored.

4. Enumerations (modifications of a way to execute the same mean) are not scored. Just give a score of one (1).

5. Statements of the goal itself are not scored.

July 27, 1983

Unique System for Story #1 (SPI - MEPS)

A. Specific Means

0. Can't rate/none.
1. Asks others to play or join them.
2. Kids greet/introduce each other.
3. Asks/requests others to be his/her friends.
4. Environmental check.
5. Specific approach.
6. Seeks parental permission.
7. Effort expenditure.
8. Kid does something specific to make friends.
9. Shared experiences.
10. Parental involvement.
11. Teacher involvement.
12. Planning.
13. Lists alternatives.
14. Other.

B. Specific Obstacles

0. Can't rate/none.
1. No one is available to play.
2. Couldn't play.
3. Won't play.
4. Kids fight/act hostile/engage in conflict.
5. Internal attributes.
6. Other.

C. Scoring for Time

Unique System for Story #1 (SPI - MEPS)

A. Specific Means

What discrete steps are stated which enable story protagonist to get closer to the story goal?

0. Can't rate/none. No scorable means are given. Story content is not relevant to story goal attainment. Only inferential ideas/actions are advanced.
1. Asks others to play or join them. This includes requests to play with or join other kids ("Can I play with you?", "Can I join you?") as well as invitations to play or join in ("Do you want to play?", "Do you want to join us?"). Requests/invitations may be advanced either by the story protagonist or by other story characters.
2. Kids greet/introduce each other. Includes exchanging names, character A introducing character B to character C, etc. May be initiated by story protagonist or other story character.
3. Asks/requests others to be his/her friend. Must be a direct bid for friendship, such as "Do you want to be my friend?" or "Can I be your friend?" or "Let's be friends". May be initiated by story portagonist or other story character.
4. Environmental check. Involves non-verbal, physical exploration of the environment to determine/discover avenues for friendship. Such things as looking around the neighborhood, going to the park to see what's going on, going around the corner to see what it was like, and going out into the neighborhood are scored here. This category includes more general means than category 5 (below).
5. Specific approach. This includes non-verbal, physical approaches to specific settings or situations, with the intent being to gain friendship. Such things as going up to a specific house, knocking on a door, or physically approaching a game situation are scored here.

6. Seeks parental permission. This includes asking for permission to go outside (general), to go to the park (specific), to play, etc.
7. Effort expenditure. General references to "trying" to make friends are scored here ("He tried and tried and tried").
8. Kid does something specific to make friends. Internal attributes (being nice, doing friendly things), physical displays of ability (became a really good kickball player), doing favors, acquiring toys/material objects others like to play with (buys ATARI), are scored here.
9. Shared experiences. This includes actually doing things with other kids (going to the zoo, having a picnic) as well as inviting others to do something together (inviting someone to go to a fun place together). It is as if it is realized that you need shared experiences to become friends.
10. Parental involvement. This includes approaches to a parent or adult figure, other than a teacher, in order to seek/gain advice or help, or to simply inform them of the situation. Such things as talking the situation over with parents, tattling to a parent, or parents getting to know each other, are scored here. Simple requests for parental permission (see category 6, above) are not scored here.
11. Teacher involvement. This includes approaches to the teacher in order to seek/gain advice or help, or to simply inform the teacher of the situation. Such things as tattling to the teacher or teacher interference with kids who are unkind are scored here.
12. Planning. Specific statements of planning, or thinking of a plan, are scored here. There must be evidence of thought followed by an attempt to execute the plan.
13. Lists alternatives. Subject persists in listing discrete alternative solutions rather than telling a story. A score of 1 is given.
14. Other. (specify)

B. Specific Obstacles

What actual or potential interferences with goal attainment are advanced?

0. Can't rate/none. No scorable obstacles are given. Story content is not relevant to goal attainment. Only inferential obstacles are advanced.
1. No one is available to play with. The emphasis here is on the physical absence of others with whom to play. Situations such as no one being home, no one around outside, or couldn't find anyone are scored here.
2. Couldn't play. The emphasis here is on involuntary inability to play. Situations such as lack of parental permission or prior committments precluding play are scored here. This may pertain to either the story protagonist or another story character.
3. Won't play. The emphasis here is on voluntary refusal to engage in play. This category includes a variety of reasons for refusal to play such as 1) toys aren't attractive enough, or 2) others don't want to play with a "new" kid. Also scored here are situations where a request to play is rejected or ignored without a reason given.
4. Kids fight/act hostile/engage in conflict. This category includes both physical and verbal conflict, such as physical fighting, saying nasty things, acting hostile, or simply not getting along.
5. Internal attributes. Such internal interferences as fear or being shy are scored here. Any inner quality which actually does or potentially could hamper the protagonist from attaining the story goal is scored here.
6. Other. (specify)

C. Scoring for Time

Time is scored whenever specific reference to time is made or references to time passage occur. Time is not scored when common expressions in our vernacular are used.

July 27, 1983

Unique System for Story #2 (SPI - MEPS)

A. Specific Means

0. Can't rate/none.
1. Teacher help.
2. Student help.
3. Parental help.
4. Student effort.
5. Learning theory strategies.
6. Planning.
7. Lists alternatives.
8. Other.

B. Specific Obstacles

0. Can't rate/none.
1. Peer help unobtainable.
2. Teacher help unobtainable.
3. Internal attributes.
4. Doesn't understand instructions.
5. Other.

C. Scoring for Time

Unique System for Story #2 (SPI - MEPS)

A. Specific Means

What discrete steps are stated which enable story protagonist to get closer to the story goal?

0. Can't rate/none. No scorable means are given. Story content is not relevant to story goal attainment. Only inferential ideas/actions are advanced.
1. Teacher help. The emphasis here is on attempting to obtain and/or obtaining help from the teacher. This includes verbal and nonverbal (raising hand) requests for help, as well as instances of unsolicited help given/offered by the teacher.
2. Student help. The emphasis here is on attempting to obtain and/or obtaining help from classmates. This includes verbal requests as well as nonverbal endeavors (looks over neighbor's shoulders). Also included here are instances of unsolicited help-giving by classmates.
3. Parental help. The emphasis here is on attempting to obtain and/or obtaining help from parents (or adult figures other than the classroom teacher). This includes verbal requests as well as nonverbal endeavors to obtain help. Also included are instances of unsolicited help-giving by parents.
4. Student effort. Indications of student effort such as working hard, thinking hard, listening hard, or studying hard are scored here. The emphasis is on effort/application without reference to any particular "learning theory" strategies (see 5 below).
5. Learning theory strategies. Coded here are specific references to strategies such as rehearsal (keeping in mind what mom and dad said), (attempted) recall (tries to remember what the teacher said), or learning transfer (relating present to past assignments).
6. Planning. Specific statements of planning, or thinking of a plan, are scored here. There must be evidence of thought followed by an attempt to execute the plan.

7. Lists alternatives. The subject persists in listing discrete alternative solutions rather than telling a story. A score of 1 is given.
8. Other. (specify)

B. Specific Obstacles

What actual or potential interferences with goal attainment are advanced?

0. Can't rate/none. No scorable obstacles are given. Story content is not relevant to goal attainment. Only inferential obstacles are given.
1. Peer help unobtainable. Included here are a variety of instances where help from classmates is not obtained. Reasons for failure to obtain peer assistance include 1) peers are too busy, 2) peers lack ability, 3) peers reject or ignore or refuse request, 4) peers don't hear request, 5) peers aren't done with their work, 6) it is against the rules to help, etc.
2. Teacher help unobtainable. Included here are a variety of instances where help from the teacher is not obtained. Reasons for failure to obtain teacher assistance include 1) teacher is too busy, 2) teacher won't repeat explanation, 3) teacher didn't/won't give instructions, etc.
3. Internal attributes. Such internal interferences as fear or being shy are scored here. Any inner quality which actually does or potentially could hamper the story protagonist from attaining the story goal is scored here.
4. Doesn't understand instructions. Indications that the story protagonist fails to understand instruction, directions, or explanations are scored here.
5. Other. (specify)

C. Scoring for Time

Time is scored whenever specific reference to time is made or references to time passage occur. Time is not scored when common expressions in our vernacular are used.

July 27, 1983

Unique System for Story #3 (SPI - MEPS)

A. Specific Means

0. Can't rate/none.
1. Asks others to play or join them.
2. Asks/requests others to be his/her friend.
3. Seeks rationale.
4. Threatens/scolds/punishes/lectures.
5. Kid does something specific to make friends.
6. Teacher involvement.
7. Planning.
8. Lists alternatives.
9. Other.

B. Specific Obstacles

0. Can't rate/none.
1. Request ignored or rejected.
2. Physical inadequacy.
3. Too late.
4. Internal attributes.
5. Threatens/scolds/punishes/lectures.
6. Other.

C. Scoring for Time

Unique System for Story #3 (SPI - MEPS)

A. Specific Means

What discrete steps are stated which enable story protagonist to get closer to the story goal?

0. Can't rate/none. No scorable means are given. Story content is not relevant to story goal attainment. Only inferential ideas/actions are advanced.
1. Asks others to play or join them. This includes requests to play with or join other kids ("Can I play with you?", "Can I join you?") as well as invitations to play or join in ("Do you want to play?", "Do you want to join us?"). Requests/invitations may be advanced either by the story protagonist or by other story characters.
2. Asks/requests others to be his/her friend. Must be a direct bid for friendship, such as "Do you want to be my frient?" or "Let's be friends". May be initiated by story protagonist or other story character.
3. Seeks rationale. The emphasis here is on the story protagonist's attempt to determine why s/he is being excluded (asks friends why they won't let her play). To be scored here, an active attempt to gain a rationale must be made.
4. Threatens/scolds/punishes/lectures. The emphasis here is on instances where an aversive response follows the "friends'" refusal to let the story protagonist play. Such things as 1) threatens to tattle, 2) won't talk to friends, or 3) someone other than the story protagonist refuses to play unless the story protagonist is permitted to play, are scored here.
5. Kid does something specific to make friends. Internal attributes (being nice, doing friendly things), physical displays of ability (become a really good kickball player), etc. are scored here.

6. Teacher involvement. This includes approaches to the teacher in order to seek/gain advice or help, or to simply inform him/her of the situation. Such things as tattling to the teacher or teacher interference with kids who are unkind are scored here.
7. Planning. Specific statements of planning, or thinking of a plan, are scored here. There must be evidence of thought followed by an attempt to execute the plan.
8. Lists alternatives. Subject persists in listing discrete alternative solutions rather than telling a story. A score of 1 is given.
9. Other. (specify)

B. Specific Obstacles

What actual or potential interferences with goal attainment are advanced?

0. Can't rate/none. No scorable obstacles are given. Story content is not relevant to goal attainment. Only inferential obstacles are advanced.
1. Request ignored or rejected. Scored here are instances when the story protagonist's request to play (or teacher's request on behalf of the protagonist) is rejected with no apparent cause or reason given.
2. Physical inadequacy. Scored here are instances when the story protagonist is excluded due to some physically related deficit such as lack of skills. Physical inadequacy may be demonstrated by the story protagonist or assumed/suspected by the other story characters.
3. Too late. Scored here are instances where the game is already in progress, or where a sufficient number of players already exists, prior to the time the story protagonist tries to gain entry.

4. Internal attributes. Such internal interferences as fear or being too shy are scored here. Any inner quality which actually does or potentially could hamper the protagonsit from attaining the story goal is scored here.
5. Threatens/scolds/punishes/lectures. Instances where the "friends" meet the story protagonist's request to gain entry with aversive consequences (they threaten to fight or bully the story protagonist, or they make fun of him/her) are scored here.
6. Other. (specify)

C. Scoring for Time

Time is scored whenever specific reference to time is made or references to time passage occur. Time is not scored when common expressions in our vervacular are used.

July 27, 1983

Unique System for Story #4 (SPI - MEPS)

A. Specific Means

0. Can't rate/none.
1. Takes work home to complete/practice skills.
2. Asks for/receives help (encouragement) from other students.
3. Asks for/receives help (encouragement) from teacher.
4. Asks for/receives help (encouragement) from parents.
5. Contemplates suffering natural consequences, or is motivated by positive natural consequences.
6. Attempts to modify off-task behavior.
7. Pacing.
8. Effort.
9. Internal characteristics/emotions.
10. Negotiates/seeks compromise with teacher.
11. Planning.
12. Lists alternatives.
13. Other.

B. Specific Obstacles

0. Can't rate/none.
1. Teacher won't/can't help.
2. Off-task/distraction.
3. Lack of ability/insufficient understanding.
4. Poor work pace/makes errors.
5. Other.

C. Scoring for Time

Unique System for Story #4 (SPI - MEPS)

A. Specific Means

What discrete steps are stated which enable story protagonist to get closer to the story goal?

0. Can't rate/none. No scorable means are given. Story content is not relevant to story goal attainment. Only inferential ideas/actions are advanced.
1. Takes work home to complete/practice skills. Score here if the story protagonist actually takes work home to work on or complete. Also included in this category are references to the story protagonist practicing or working on specific skills at home. The emphasis here is on putting in work time outside of the regular school environment.
2. Asks for/receives help from other students. Emphasis here is on instances of asking for and/or receiving (solicited or unsolicited) help from fellow classmates. It is not necessary for the story protagonist to actually ask for help. Also scored here are references to selecting (smart) work partners.
3. Asks for/receives help from teacher. Emphasis here is on instances of asking for and/or receiving (solicited or unsolicited) help from the teacher. It is not necessary for the story protagonist to actually ask for help.
4. Asks for/receives help from parents. Emphasis is on instances of asking for and/or receiving (solicited or unsolicited) help from parents. It is not necessary for the story protagonist to actually ask for help.
5. Contemplates suffering natural consequences. Included here are references to the story protagonist mentally focusing on unpleasant consequences to not completing the work assigned such as teacher punishment ("If you don't finish your work, you can't go out for recess") or teacher/parental anger. Also coded here are references to being motivated by anticipation of naturally occurring positive consequences for behavior.

6. Attempts to modify off-task behavior. Emphasis here is on the story protagonist trying to move from an "off-task" to "on-task" behavior state. This includes specific references to such things as 1) stops talking to other kids, 2) stops fooling around, or 3) gets right to work, as well as attempts to prevent other classmates from interfering with work progress (asks classmates to be quiet: ignores other kids who are trying to talk to him/her).
7. Pacing. References to altering work pace (slowing down or speeding up) are scored here.
8. Effort. References to such things as working hard, listening hard, disciplining self, or trying hard to follow directions are scored here.
9. Internal characteristics/emotions. References to internal attributes such as feeling confident, or energizing emotions (anger at peers for ridiculing him/her) are scored here.
10. Negotiates/seeks compromise with teacher. This category is used primarily when the subject alters the story goal to be simply that of getting out for recess, whether or not the work is completed. Scored here are references to promising the teacher to take work home, asking to go out even if work is not done, etc.
11. Planning. Specific statements of planning, or thinking of a plan, are scored here. There must be evidence of thought followed by an attempt to execute the plan.
13. Other. (specify)

B. Specific Obstacles

What actual or potential interferences with goal attainment are advanced?

0. Can't rate/none. No scorable obstacles are given. Story content is not relevant to goal attainment. Only inferential obstacles are advanced.

1. Teacher won't/can't help. Any instances of the teacher refusing/denying request for help are scored here. Teacher unavailability to help is also scored here. The reasons for refusal might include being too busy, being unwilling to repeat explanations, or not helping because of a testing situation.
2. Off-task/distraction. Included here are such behaviors as talking too much, fooling with pencils, or general goofing off. Also included are instances where story protagonist is distracted due to other students' disruptive or off-task behaviors.
3. Lack of ability/insufficient understanding. Included here are references to the protagonist's lack of understanding regarding the specific work assigned, or his/her lack of ability in relation to the general subject matter.
4. Poor work pace/makes errors. References to inaccurate work performance, particularly related to inappropriate work pace (going too fast or too slow) are scored here.
5. Other. (specify)

C. Scoring for Time

Time is scored whenever specific reference to time is made or references to time passage occur. Time is not scored when common expressions in our vernacular are used.

STUDENT # _____

TEACHER # _____

MEANS - ENDS PROBLEM SOLVING

INDIVIDUAL CODING SHEET

	MEANS	OBSTACLES	TIME	INDIVIDUAL STORY TOTAL
STORY 1				
STORY 3				
SUBTOTALS 1 + 3	subtotal means (1+3) ____	subtotal obstacles (1+3) ____	subtotal time (1+3) ____	subtotal for stories 1 + 3 ____

	MEANS	OBSTACLES	TIME	INDIVIDUAL STORY TOTAL
STORY 2				
STORY 4				
SUBTOTALS 2 + 4	subtotal means (2+4) ____	subtotal obstacles (2+4) ____	subtotal time (2+4) ____	subtotal for stories 2 + 4 ____
TOTALS 1+2+3+4	total means 1+2+3+4 ____	total obstacles 1+2+3+4 ____	total time 1+2+3+4 ____	GRAND TOTAL for stories 1+2+3+4 ____

September 13, 1984

SPI - CODING SYSTEM*
for
RULES (A-1, A-2, A-3)
and
WORST/HAPPIEST THINGS (A-4, A-5, A-6, A-7)

DOMAIN

Sections A through D (below) are used to classify each rule (worst/happiest thing) statement according to the domain(s) or area(s) of classroom life for which the implied behavioral norm(s) applies. Thus, statements pertaining to classroom work or task demands are coded in section A; statements pertaining to interpersonal behavior are coded in section B; statements relating to procedural issues belong in section C; statements which cut across domains A through C, or which are unclear as to the domain they represent are coded in section D. Each rule (worst/happiest thing) statement is coded in only one of the four major domain categories, A through D.

A. Task Domain. Coded here are rules (worst/happiest things) that refer to some specific aspect of student work behavior, or the cognitions and attitudes underlying it.

   0. N/A. Does not apply. The rule (worst/happiest thing) statement is not task related.

   1. On/off task - Nonsocial. The given rule (worst/happiest thing) relates to students being on or off task, and the on or off-task behavior is of the "nonsocial" or non-in-seat or out-of-seat variety ("Don't mess with things inside your desk when the teacher is talking").

* Adapted from the Socializing Messages coding system developed by the Socialization Outcomes research project (Institute for Research on Teaching, MSU) for use in coding teacher observation narratives.

2. On/off task - In or out of seat. The rule (worst/happiest thing) statement relates to students being in or out of their seats during instruction/work time ("You have to stay in your seat during work time").
3. On/off task - social. The rule (worst/happiest thing) statement relates to students not talking or talking to one another during instruction/work time. Student responses coded here would include not only those that focus on the talking itself ("You can't talk during work time") but also general references to the "noise level" when students are supposed to be instructionally engaged ("You have to be quiet during work time").
4. Task completion. The rule (worst/happiest thing) clearly emphasizes the importance of finishing a task or making significant progress toward accomplishing the task and "using time wisely" ("You have to finish your work before you can play in the back of the room"; "She'd be really happy if I got all my work done every day").
5. Neatness. The rule (worst/happiest thing) focuses on the neatness or sloppiness of the work ("You can't turn in a paper if the teacher can't read it").
6. Help-getting. The rule (worst/happiest thing) relates to appropriate or inappropriate ways of getting help from the teacher, other students, and/or other adults. This should not be used for student responses focusing on ways to get the teacher's attention for other matters. There should be a clear and explicit focus on how to get assistance for academic tasks. An example is: "If you need help, you have to raise your hand."
7. Effort/trying. The rule (worst/happiest thing) focuses on student effort or lack of effort. It must be an explicit reference to effort or trying to be coded here, such as "She'd be really happy if I really tried to do my best work" or "You have to try your best".

8. Adhering to form. Included in this category are references to the format or layout of papers: headings being in the right places, names on the paper, paper folded the right way, etc.
9. Following directions within task. Included here would be any rule (worst/happiest thing) statements referring to the sequence of behaviors that are supposed to occur within a given task. The emphasis is on the more superficial aspects of this sequence, not the underlying cognitive sequence, which would be coded in category 11. Included here are general references to "following directions" when referring to academic tasks.
10. Following directions across tasks. Rule (worst/happiest thing) statements coded here refer to a student's sequence of behaviors across more than one task. An example might be: "You have to do your math before you do your reading." Also included here are general references to minding/obeying the teacher or doing what the teacher says when she wants you to do it.
11. Cognitive strategies for meeting task demands. Included here are rule (worst/happiest thing) statements concerning the processes or strategies students should follow in order to successfully move through a task.
12. Turning in work. Rule (worst/happiest thing) statements regarding procedures for turning in work are coded here ("When you finish your work, you have to put your paper in the basket on the right side of her desk").
13. Confidence. The rule (worst/happiest thing) focuses on student self-confidence or "trust in self" as a key factor influencing work performance ("She would be really happy if she knew I really thought I could do the work she gives me to do").
14. Performance. The rule (worst/happiest thing) relates to how well students perform on a task ("She would feel happy if I got an A on my math").

15. Other/can't rate. Any rule (worst/happiest thing) statements that are related to meeting task demands, but that do not fit in any of the fourteen categories above should be coded here.
16. Mix 1. If the rule (worst/happiest thing) statement incorporates elements of A-1 and A-3 (above), code here.
17. Mix 2. If the rule (worst/happiest thing) statement incorporates elements of A-3 and A-4 (above), code here.
18. Mix 3. If the rule (worst/happiest thing) statement incorporates elements of A-1 and A-4 (above), code here.
19. Mix 4. If the rule (worst/happiest thing) statement incorporates elements of A-1, A-6, and A-9 (above), code here.
20. Mix 5. If the rule (worst/happiest thing) statement incorporates elements of A-5 and A-14 (above), code here.

B. Interpersonal Domain. Code here rule (worst/happiest thing) statements which refer to students' interactions (both verbal and physical) with other students or adults or the way this is done. Statements regarding specific behaviors ("Don't kick or hit") as well as more general qualities ("Be kind and considerate") are included here.
   0. N/A. Does not apply. The rule (worst/happiest thing) is not interpersonal in nature.
   1. Specific verbal. The rule (worst/happiest thing) deals specifically with students' verbal behavior. This may include such things as name calling, laughing at someone, cursing, etc. ("Don't curse at the teacher").
   2. Specific physical. The rule (worst/happiest thing) specifically relates to students' physical behavior (pushing, hitting). General references to "fighting" are also coded here.
   3. Specific non-verbal, non-physical. Here the content of the rule (worst/happiest thing) deals with gestures a student may make to another student and other more subtle behavior like rolling eyes, making faces, etc.

4. General, abstract. The rule (worst/happiest thing) centers around more general concepts like mutual respect (golden rule) and cooperation ("She would be really happy if we all cooperated with one another" or "You have to be respectful").
5. General, concrete. The rule (worst/happiest thing) statement refers to a more general, concrete construct such as "no stealing", "no lying", or "you can't cheat".
6. Other/can't rate. Included here are rule (worst/happiest thing) statements in the interpersonal domain that don't clearly fit into one of the above categories.
7. Mix 1. If the rule (worst/happiest thing) statement incorporates elements of B-1, B-2, and B-5 (above), code here.

C. Procedural Domain. Coded here are rule (worst/happiest thing) statements that refer to classroom procedures which do not focus specifically on academic tasks or interpersonal interactions. Most of these procedures involve general regulations or routines that help maintain the smooth flow of activities in the classroom, thus establishing a setting for more specific task and interpersonal opportunities.
   0. N/A. Does not apply. The rule (worst/happiest thing) is not procedural in nature.
   1. On/off task - nonsocial. The rule (worst/happiest thing) refers to students being on or off-task during a procedural routine, and the behavior referred to is nonsocial in nature ("When she turns out the light you have to put your head down" or "You have to listen to the announcements on the PA").
   2. On/off task - in or out of seat. The rule (worst/happiest thing) relates to students being in or out of their seats during a procedural routine ("You have to stay in your seats until your row is called for recess").

3. On/off task - social. The rule (worst/happiest thing) relates to students talking or socializing during procedural routines or non-instructional time periods.
4. Movement/space. The rule (worst/happiest thing) relates to procedures for use of movement/space in the room. Most statements coded here relate to use of the bathroom, drinking fountain, pencil sharpener, etc. ("You have to ask to go to the bathroom").
5. Supplies. The rule (worst/happiest thing) relates to students caring for school/classroom supplies or materials ("No graffiti in the bathrooms" or "We have to pick up the toys after ourselves").
6. Guidelines for when and how to respond and/or get teacher's attention. The rule (worst/happiest thing) concerns appropriate or inappropriate ways to answer questions or when and how students may address the teacher ("Don't shout out your answer when its not your turn" or "Raise your hand if you have a question to be asked"). Do not code here statements that are specifically about how students seek help for work. This should be coded under task demands, Section A, category 6.
7. Throwing things. Rule (worst/happiest thing) statements related to throwing things (e.g. paper airplanes) are coded here. However, if it is apparent that the target of the thrown object is another person, or if a rationale accompanies the statement which indicates that the "throwing" issue is an interpersonal one, do not code here; code as B-2 (above) ("Don't throw books at the teacher" or "Don't throw objects...because someone might get hurt").
8. Helping teacher. Rule (worst/happiest thing) statements related to helping the teacher are coded here. These statements relate primarily to housekeeping tasks ("She would be really happy if I could help her...water the plants...hand out papers...do her work").

9. Other/can't rate. Rule (worst/happiest thing) statements regarding procedures that cannot be coded more specifically above are coded here.

D. Domain Unclear/Mixed. Code here when the domain cannot be determined because there is insufficient information given (see 1 below). Code here references to gum chewing (see 2 below). Also code here when more then one domain is mentioned (see 3 - 5 below).

0. N/A. Does not apply. The rule (worst/happiest thing) statement is codable in sections A through C, above.
1. Unclear. The rule (worst/happiest thing) statement is vague or ambiguous; insufficient information is given to determine the domain ("You have to behave in class").
2. Gum. The rule (worst/happiest thing) relates specifically to gum chewing.
3. Mix 1. If the rule (worst/happiest thing) statement incorporates elements of A-2 and B-6, code here.
4. Mix 2. If the rule (worst/happiest thing) statement incorporates elements of A-2, A-3, C-1, and C-6, code here.
5. Mix 3. If the rule (worst/happiest thing) statement incorporates elements of A-1 and D-1, code here.

RATIONALE

Section E (below) is coded when the interviewee presents reasons why students should behave or perform in a certain way, or (1) why the most important rule is so important, (2) why the "worst thing" is so terrible, or (3) why the "happiest thing" would make the teacher so very happy. Section E is used to code a variety of rationales. However, a simple statement of extrinsic consequence ("You can't fight... because you would get sent to the principal's office...") is not coded in section E. Rather, extrinsic consequences are coded in sections F and G (below). Both solicited and spontaneously given rationales are coded in section E.

E. Rationale. This section is used to code all solicited or spontaneously given rationales that accompany rule (worst/happiest thing) statements with the exception of simple statements of extrinsic consequence. Rationales coded here are primarily "because" statements.

0. N/A. Does not apply. A rationale was not given.
1. Authoritarian. The rationale relates to the teacher's authority in the classroom ("...because the teacher said so..") or to extremes in teacher affect ("...because she would get really mad...").
2. Social context. The rationale relates to the effect of complying or not complying with the rule (worst/happiest thing) on the classroom group, or other students in the classroom ("...don't fight because you could hurt the other kids..." or "...be quiet so you won't disturb the other kids while they're working").
3. Individual context. The rationale relates to the effect of complying or not complying with the rule (worst/happiest thing) on the interviewee him/herself ("...pay attention... so I can learn" or "...don't run, because I might bump into something and get hurt").
4. Teacher needs. The rationale relates to the teacher's need for efficiency, concentration, etc. ("help her do her work... because she has so much work to do and then she wouldn't have so much to do").
5. Destruction of property. The rationale relates to the destruction of property as a result of inappropriate behavior or rule infraction ("...don't let the ball go out in the road... because it could get run over and get popped").
6. Parents. The rationale relates to parental reactions to student behavior ("...get your work done, 'cause if you don't your parents will find out and they'll get really mad at you..").

7. Moralizing. Rationales coded here smack of "moralizing" or "preaching", and often sound like they might be simple repetitions of what the interviewee heard an adult say ("Don't talk to other kids during work time because that's not what you're here for. You're here to learn, not to visit; you have recess for that...").
8. Other/can't rate. Any rationales which do not fit into any of the seven categories above, and which are not simple statements of extrinsic consequence, should be coded here.

EXTRINSIC CONSEQUENCES

Extrinsic consequences are established by the individual teacher as a part of his/her own accountability system, and may be "positive" or "negative" with regard to teacher intent. Examples of negative consequences for behavioral infractions would include lowering grades for late papers, missing recess, time out, writing a paper on one's behavior, and being sent to the principal. Positive consequences for behavioral compliance include the bestowing of stickers, priveledges, and praise. Code in sections F and G (below) interviewee responses containing statements of extrinsic consequence relating to (1) why the most important rule is so important, (2) why the "worst thing" is so terrible, or (3) why the "happiest thing" would make the teacher so very happy. Both solicited and spontaneously given statements of extrinsic consequence are coded. (NOTE: Whenever a statement of extrinsic consequence occurs, both sections F and G must be coded.)

F. Teacher intent in administering extrinsic consequences. Here the probable intent of the teacher in administering the extrinsic consequence is coded.
   0. N/A. Does not apply. An extrinsic consequence was not given to accompany the rule (worst/happiest thing) statement.
   1. Positive. The stated extrinsic consequence is most likely intended to be desireable or enjoyable for the student.

2. Negative. The stated extrinsic consequence is most likely intended to be undesireable or unpleasant for the student.

G. Nature of Extrinsic Consequence. If a student response includes more than one type of extrinsic consequence and they are equally emphasized, code according to the higher number below (e.g., immediate tangible over verbal consequence). However, if one of the two consequences is not as strongly emphasized, or if one is not as clear and requires more inference about its link to behavior, then code for the consequence that is emphasized most clearly.

0. N/A. Does not apply. An extrinsic consequence was not given to accompany the rule (worst/happiest thing) statement.

1. Focusing statement, reminder. The only consequence of the student behavior is the teacher calling the student's attention to it and, perhaps, pointing out what should be done in the case of misbehavior.

2. Verbal consequence: Praise or criticism. Code here when the extrinsic consequence consists of teacher praise or criticism.

3. Immediate tangible. An immediate extrinsic consequence is the result of a single behavior by the child and not part of a system of accumulating credit toward eventual rewards and punishments. A tangible consequence is something material or concrete (e.g., stickers, trip to principal) that does not involve rewarding or removal of a priveledge.

4. Immediate activiey, privilege. Code here if the extrinsic consequence is immediate (see 3 above), and the consequence is the withholding or the bestowing of an activity or privilege (freetime, recess, etc.). A teacher who writes a student's name on the board to indicate good or bad behavior will be said to be employing this sort of extrinsic consequence.

5. Cumulative, tangible. Code here if the consequence is part of a system for accumulating credit toward eventual rewards and punishments and the consequence is or will be tangible (see 3 above). For example, if a point is given and the ultimate consequence is tangible, code here.
6. Cumulative activity, privilege. Code here if the consequence is part of a cumulative plan, and the consequence is or will be the withholding or bestowing of an activity or privilege ("If you get three checks in one day then you have to stay after school" or "If you don't get your name on the board all week then you get a special freetime on Friday"). Unless clearly indicated otherwise, a teacher who puts checks by students' names which are on the board signaling good or bad behavior will be considered to be using this sort of extrinsic consequence. If only names are on the board (no checks by names), code as 4 above.

CONTEXTUAL INFORMATION

Sections H through L (below) are used to provide contextual information relating to all rule (worst/happiest thing) statements and their accompanying rationales or statements of extrinsic consequence.

H. Target population. To whom or for whom is the stated activity/behavior directed? Unless the interviewee's response specifically identifies a target population, code H-0.
   0. N/A. Does not apply. Specific reference to a target population was not made ("don't hit").
   1. Other kids. The target population consists of other children in the classroom ("don't do work for other kids").
   2. Teacher. The activity/behavior is targeted toward the classroom teacher ("don't hit the teacher").
   3. Adults. The activity/behavior is directed toward adults other than the teacher ("obey all adults").
   4. Self. The focal population for the activity/behavior is the behaver him/herself ("do your work by yourself").

I. Student context. What are the students doing in relation to the rule (worst/happiest thing) statement provided? In other words, during what type of activity or in what specific locations does the behavioral norm apply? Specific reference to an activity/location must be made to warrant a code other than I-0.

0. N/A. Does not apply. No specifics were provided regarding the activity during which or the location in which the behavioral norm applies. Responses such as "don't hit" receive a code of I-0. Also, the general location reference of "in the room" is coded here ("No running in the room"). As the interview specifically asks subjects to focus on their own particular classrooms, rule (worst/happiest thing) statements which are lacking activity/location information are assumed to be relevant throughout all activities within the classroom setting.

1. Instruction/work time. The rule (worst/happiest thing) particularly applies during instructional activities and/or work time ("no talking during seatwork").

2. Lunch. The rule (worst/happiest thing) particularly applies to lunch time or to the lunch area ("no fighting in the lunch room").

3. Hall. The rule (worst/happiest thing) particularly applies to behavior in the halls ("no running in the halls").

4. Lining-up. The rule (worst/happiest thing) particularly applies to times when students are lining up ("no pushing on line").

5. Outside. The rule (worst/happiest thing) is specifically mentioned in conjunction with being outside ("There's no fighting outside on the playground").

6. Bathrooms. The rule (worst/happiest thing) particularly applies to the bathrooms ("there's no writing graffiti on the bathroom walls").

7. Testing. The rule (worst/happiest thing) is particularly in effect during testing ("no copying each other's papers during a spelling test").

8. Transition. The rule (worst/happiest thing) particularly applies to transition time between activities ("We have to be quiet when we're changing subjects").
9. Other. Any specific reference to an activity or location during which the rule (worst/happiest thing) is in effect that can not be coded in I-1 through I-8 (above) is coded here (e.g., freetime, tornado drills, music room, gym).

J. Positive/negative language. Every rule (worst/happiest thing) statement can be classified as being positively or negatively stated.
   0. Negative. Examples of negatively stated responses are "Don't fight", "no running in the hall", or "don't be mean".
   1. Positive. Examples of positively stated responses are "be kind", "walk in the hall", or "do your work neatly".

K. Spontaneous rationale. Interview items A-3, A-5, and A-7 specifically solicit rationales (or statements of extrinsic consequence) from interviewees to accompany their 1) most important rule, 2) worst thing, and 3) happiest thing choices. However, in addition to solicited rationales/extrinsic consequences, interviewee responses are sometimes accompanied by a spontaneously given rationale/extrinsic consequence. For example, when asked to simply list all of the classroom rules (interview item A-1), a subject might say "Don't fight with other kids because someone might get hurt." The underlined portion of this statement represents a spontaneous rationale and should be coded as such (K-1). All rule (worst/happiest thing) statements receive a code of either K-0 or K-1.
   0. No. Does not apply. A spontaneous rationale/extrinsic consequence is not provided. Any rationales/extrinsic consequences given were solicited by the interviewer.

1. Yes. A spontaneous rationale/extrinsic consequence was provided by the interviewee.

L. Permission seeking. Certain rule (worst/happiest thing) statements relate primarily to seeking teacher permission to act or behave in a particular way. For example, a rule statement such as "You have to ask to get a drink (go to the bathroom, go to the front of the room)" seems to relate more to the "permission" issue than to "when" or "how" type issues ("You can only get drinks at lunch or free time"; "You have to be really quiet when you get a drink"). All rule (worst/happiest thing) statements receive a code of either L-0 or L-1. (Rules receiving a code of L-1 are also coded for content elsewhere on the coding system. For example, "You have to ask to get a drink" receives both an L-1 code and a C-4 code.)

0. No. Does not apply. Seeking teacher permission was not a part of the rule (worst/happiest thing) statement.
1. Yes. Seeking the teacher's permission to act was given as an integral part of the rule (worst/happiest thing) statement.

CODING SHEET

RULES WORST/HAPPIEST THINGS

	TIME																				
	TREATMENT NUMBER																				
Domain	A TASK DOMAIN																				
	B INTERPERSONAL DOMAIN																				
	C PROCEDURAL DOMAIN																				
	D DOMAIN UNCLEAR OR MIXED																				
	M RATIONALE																				
Probable Consequences	N STUDENT REACTION																				
	O NATURE OF CONSEQUENCE																				
	T PERMISSION																				
	K SPONT. RATIONALE																				
	J POS/NEG LANGUAGE																				
	I STUDENT CONTEXT																				
	H TARGET POP.																				

May 9, 1984

Unique System for SPI - Characteristics of Good Workers

A. Academic Considerations
- 0. None.
- 1. Accuracy.
- 2. Academic ability.
- 3. Understanding.
- 4. Ambiguous - "good".
- 5. Ambiguous - "knowing answers".
- *6. Other/can't rate.

B. Self-Comparison
- 0. Not applicable.
- 1. No.
- 2. Yes.

C. Non-academic considerations
- 0. None.
- 1. Art.
- 2. Penmanship.
- 3. Athletic ability.
- *4. Other/can't rate.

D. Behavioral indicators
- 0. None.
- 1. Lacks hostile/aggressive behavior.
- 2. On-task.
- 3. Classroom disruption.
- 4. Work pace.
- 5. Work completion.
- 6. Effort.
- 7. Follows rules.
- 8. Helpfulness.
- 9. Listens.
- 10. Independent worker/doesn't cheat.
- 11. Seeks help.
- 12. Cares for supplies/materials.
- *13. Other/work-related.
- *14. Other/socially-related.

E. Personal Characteristics
- 0. No.
- 1. Yes.

F. Teacher Verification
- 0. No.
- 1. Yes.

G. Personal Friendship
- 0. No.
- 1. Yes.

H. Consistency of Behavior
- 0. None.
- 1. Academic Performance.
- 2. Work completion/pacing.
- 3. Talking/socializing.
- *4. Other/can't rate.

I. Other (specify)

*SPECIFY

Unique System for SPI - Characteristics of Good Workers

A. Academic considerations

Use this section to code references to academic accuracy, ability, and understanding. Also code here more ambiguous references to academic matters such as being "good" at a variety of subjects or knowing answers (see A-4 and A-5 below).

0. None. Does not apply. Academic considerations were not mentioned.
1. Accuracy. The student was nominated as a good worker because s/he gets good grades or marks, gets lots of stars, knows the answers, etc. There must be some specific reference to accuracy of student response to be coded here. (For example, statements such as "gives the most answers" would not be coded here, as answers could be either correct or incorrect.)
2. Academic ability. The good worker was nominated because of his/her high academic ability. The student is smart, is in a top reading (or other academic area) group, is in a special spelling kit, has passed all his/her times, etc. References to being creative, or having good ideas are also coded here. (Non-academic ability is not coded here, but is coded in section C, below.)
3. Understanding. The good worker was nominated because of his/her understanding of academic subject matter areas and/or an understanding of what the teacher says.
4. Ambiguous - "good" academic performance. The good worker was nominated because s/he is "good" at math (English, reading, etc.), or because s/he writes "good" stories (reports, etc.), or because s/he "does good at her work". It can not be determined if these references to good academic performance are specifically linked to academic accuracy (A-1) or academic ability (A-2) above.
5. Ambiguous - "knowing" answers. The good worker was nominated because s/he knows the answers most of the time, raises hands (often) to give the answers, "knows" what s/he is doing, etc.

It can not be clearly determined that the answers or knowledge referred to are actually accurate, or that the hand raising reflects more than a willingness to provide an answer (correct or incorrect). (NOTE: If accuracy or ability can clearly be determined, code as A-1 or A-2 above.)

6. Other/can't rate. Any references to seemingly academic considerations which can not be categorized in A-1 through A-5 above are coded here ("he got the outstanding student award"). Such responses must be specified. (NOTE: This category is not intended for behavioral indicators such as those described in section D-13, below.)

NOTE: If A-0 is not coded, use as many remaining categories as apply.

B. Self comparison

If the interviewee refers to academic considerations (A-1 through A-6 above), does s/he compare the good worker with him/herself?

0. Not applicable. Does not apply. Academic considerations such as accuracy or ability were not mentioned.
1. No. Academic considerations were mentioned, but without self-reference such as described in B-2, below.
2. Yes. In conjunction with some mention of academic considerations (A-1 through A-6 above), reference is made to some comparison between nominee and self (interviewee). For example, responses such as "He gets better grades than I", or "She is in a higher reading group than I" are scored here. Also, responses regarding jealousy ("I get jealous when she shows me all her stars") and/or competition are taken as indication that self-comparison has occurred, and hence are scored here.

NOTE: If A-0 is coded, then B-0 must also be coded. If anything is coded in sections A-1 through A-6 above, then B-1 or B-2 must also be coded.

C. Non-academic considerations

This section is coded when the interviewee indicates that the good worker possesses the quality of accuracy or ability in a clearly non-academic area.

0. None. Does not apply. The qualities of accuracy and/or ability in non-academic areas are not mentioned.
1. Art. The nominee has artistic ability, can draw, is good in art, draws pictures for others, etc.
2. Penmanship. The good worker is neat, has good handwriting, writes "good", etc.
3. Athletic ability. The good worker was nominated because of athletic ability, or physical attributes that make him/her a good athlete.
4. Other/can't rate. Some non-academic quality was given, but it does not fit clearly into one of the areas above. Responses coded here must be specified.

NOTE: If C-0 is not coded, use as many of the remaining categories as apply.

D. Behavioral indicators

Code here when the nominee was observed to possess certain behavioral qualities that make him/her appear to be a good worker. The emphasis here is on actual behaviors, rather than more global characteristics. For example, "she lets other kids borrow stuff" would be coded here (D-14), while a more general reference to being a kind person would be coded in section E (below).

0. None. Does not apply. Behavioral indicators such as those outlined below are not mentioned.
1. Lacks hostile/aggressive behavior. The nominee does not fight, get physical with others, or generally get into trouble.
2. On-task. The nominee is in his/her seat and working, doesn't talk, and will not be disturbed by others. Statements like "Doesn't fool around" or "works quietly" will be coded here when the intent is that the student is on-task (classroom disruption is coded in D-3).

3. Classroom disruption. The nominee does not disturb the on-going classroom routine. S/he is not disruptive to individual students, the teacher, or the classroom as a whole. (References to following class/school rules are coded in section D-7, below.)
4. Work pace. The student was nominated because of the speed with which s/he does work. Either the student is a fast worker (may be the first one to hand in a paper) or takes his/her time (writes slowly and carefully). References to work pace must be specific. Such things as getting work done on time are not coded here, but are coded in D-5 (task completion) below. Actual reference to rate of work performance, or comparison to classmates' completion time must be made to warrant a pacing code.
5. Task completion. The nominee gets his/her work done. S/he completes tasks assigned, doesn't have homework due to left-over classroom assignments, finishes work on time, does her work, etc. Emphasis is on task completion, without specific reference to work pace or rate of completion.
6. Effort. The nominee tries hard. S/he puts forth a lot of effort on assignments.
7. Follows rules. Reference is made to the nominee's compliance with class/school rules and operational procedures. Statements such as "he follows most of the rules" or "she obeys my teacher's rules" are coded here.
8. Helpfulness. Reference is made to the nominee's helpfulness in academic and/or non-academic areas. Statements such as "he helps me do my work", "he helps other kids", or "she always helps the teacher" are coded here. References to being selected by the teacher as a helper, or being allowed to help others are also coded here.
9. Listening. Specific reference is made to the nominee listening, or being a good listener.

10. Works independently/doesn't cheat. The nominee works by him/herself, doesn't copy, doesn't do other people's work for them, doesn't tell other kids the answers, etc.
11. Seeks help. References to help-seeking on the part of the nominee such as "he asks me for help" or "he asks the teacher for help" are coded here.
12. Cares for supplies/materials. References to caring for supplies and materials such as "he picks up after himself" or "she puts her things away at the back of the room" are coded here.
13. Other/work-related. Behavioral indicators which are work-related but do not clearly fit into any of the categories D-1 through D-12 (above) are coded here (i.e., "he doesn't guess"; "she corrects her work"; "he reads aloud when he is supposed to"). Responses coded here must be specified.
14. Other/socially-related. Behavioral indicators which are social (or interpersonal) in nature, and do not clearly fit into any of the categories D-1 through D-12 (above) are coded here (i.e., "she doesn't cut in line"; "he respects others"; "s/he plays fair"). Responses coded here must be specified.

NOTE: If D-0 is not coded, use as many of the remaining categories as apply, with the exception of restrictions noted below regarding categories D-2, D-4, and D-5. If reference to task completion (D-5) occurs congruently (in the same sentence) with mention of pace (D-4) or on-task (D-2) behaviors, DO NOT DOUBLE CODE: code for the more sophisticated response (D-2, D-4). If reference to task completion (D-5) occurs separately (in a separate sentence) from references to pacing (D-4) or on-task (D-2) behaviors, then CODE ALL RELEVANT CATEGORIES.

E. Personal characteristics (global)

Are global personal characteristics such as being "a kind person" or "a good leader" mentioned? The emphasis here is on the global nature of such characteristics, rather than discrete behavioral indicators. For example, "he is a good kid" would be coded here, while "he is good to other people" belongs in D-14, above.

0. No. Global personal characteristics were not mentioned.
1. Yes. Global personal characteristics were mentioned.

F. Teacher verification

Did the interviewee specifically refer to teacher cues that the nominee is considered by her (the teacher) to be a good worker (i.e., "the teacher always says she's a good worker")?

0. No.
1. Yes.

G. Personal friendship

Did the interviewee specifically refer to his/her own personal friendship with the nominee when providing a rationale for the nomination?

0. No.
1. Yes.

H. Consistency of behavior

Coded here are responses which reflect interviewee awareness (or opinion) of consistent behavior on the part of the nominee. Responses coded here are always double coded in some other section of this coding system. For example, the statement "she always gets 'A's on her papers" would be coded in section H-1 (below) and in section A-1 (above).

0. None. Does not apply. Consistency was not mentioned.
1. Academic performance. References to consistent academic performance of some type are coded here (i.e., "he always knows the answer"; "he always gets stars"; "she always gets good grades").

2. Work completion/pacing. References to consistently completing work assignments, with or without reference to pacing, are coded here (i.e., "he always gets things done before they are due"; "she gets her work done every time").
3. Talking/socializing. References to consistent verbal/social behavior are coded here, with the emphasis being on the appropriateness or inappropriateness of such behavior (i.e., "he doesn't ever talk while working").
4. Other/can't rate. Statements which reflect an awareness/opinion of consistent nominee behavior and which do not clearly fit into categories H-1 through H-3 above are coded here (i.e., "he's never mean"; "he never gets in trouble"; "she has fun with me all the time").

NOTE: If H-0 is not coded, use as many remaining categories as apply.

I. Other/can't rate

Responses made by the interviewee which can not be coded anywhere in sections A through H (above) are coded here. Such responses must be specified.

GOOD WORKERS

CODING SHEET

·ulent ID																								
·uinee	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
A																								
B																								
C																								
D																								
E																								
F																								
G																								
H																								
I																								

June 28, 1984

Unique System for SPI - Characteristics of Kids Who Get Along Well

A. Helpfulness
0. None.
1. Academic help.
*2. Non-academic help.
*3. Other.

B. Helpfulness: reference point
0. None.
1. Observed interaction/hear-say.
2. Personal interaction/first-hand.

C. Play
0. No.
1. Yes.

D. Play: reference point
0. None.
1. Observed interaction/hear-say.
2. Personal interaction/first-hand.

E. Easy-going
0. None.
1. Verbally easy-going.
2. Physically easy-going.
*3. Other.

F. Easy-going: reference point
0. None.
1. Observed interaction/hear-say.
2. Personal interaction/first-hand.

G. Internal qualities
0. None.
1. Nice.
2. Courteous/caring.
3. Friendly.
4. Funny.
5. Acad/Intell endowed.
*6. Other.

H. Internal qualities: reference point
0. None.
1. Observed interaction/hear-say.
2. Personal interaction/first-hand.

I. Specific behaviors
0. None.
1. Compliant.
2. Give-aways.
3. Work-oriented/ non-disruptive.
4. Humorous.
5. Verbally polite.
6. Praises/compliments.
7. Not socially inappropriate (verbal).
8. Sociable.
9. Caring for others.
*10. Other.

J. Friend
0. No.
1. Yes.

(*Specify)

Unique System for SPI - Characteristics of Kids Who Get Along Well

A. Helpfulness

The student was nominated because s/he helps others.

0. None. Does not apply. Helpfulness was not mentioned.
1. Academic help. The student offers help in academic areas (math, reading, etc.); student helps other students who need assistance or tutoring in academic areas.
2. Non-academic help. The student offers help or assistance in areas or situations which are clearly non-academic. This includes such things as breaking up fights, getting help for physically injured classmates, befriending others, offering support/reassurance in a social way, etc.
3. Other/can't rate. When help is mentioned, but too little information is given to determine whether help is academic or non-academic in nature, code here. For example, responses such as "helps 'em" or "she helps people" are coded here. Also coded here are references to such things as helping the teacher, passing out papers, etc.

NOTE: If A-0 is not coded, code as many of the remaining A categories as apply.

B. Helpfulness: reference point

How was it assessed by the subject that the nominee is helpful?

0. None. Does not apply. Helpfulness was not mentioned.
1. Observed interaction/hear-say. The nominated student was observed in a helping capacity or his reputation is generally one of being helpful.
2. Personal interaction/first-hand. The nominee has been personally helpful to the subject being interviewed, and it is through first-hand personal experience that this quality was mentioned.

NOTE: If A-0 is coded, then B-0 must also be coded. If A-1, A-2, or A-3 is coded, then B-1 and/or B-2 must be coded. (Both B-1 and B-2 may be coded.) To code B-2, specific reference to self (interviewee) must have occurred. Do not infer personal interaction.

C. Play

Was play mentioned? For example, the nominee willingly plays with others, seems non-judgemental and accepting when choosing others with whom to play. Simple references to play, such as "is playful", "he plays with me", or "she plays with everybody" are coded here.

0. No. Does not apply. Play was not mentioned as a quality.
1. Yes. Some reference to play as a quality was made.

D. Play: reference point

How was it assessed by the subject that the nominee plays with others?

0. None. Does not apply. Play was not mentioned.
1. Observed interaction/hear-say. The nominee was observed playing willingly with others, or his reputation is one of playing well with others.
2. Personal interaction/first-hand. The nominee plays with the interviewee personally or is his/her friend. It is through first-hand personal experience that this quality was mentioned.

NOTE: If C-0 is coded, then D-0 must also be coded. If C-1 is coded, then D-1 and/or D-2 must be coded. (Both D-1 and D-2 may be coded.) To code D-2, specific reference to self (interviewee) must have occurred. Do not infer personal interaction.

E. Easy-going

The student nominated as getting along well with others seems to have been socialized such that s/he has an easy-going manner and does not over-react physically and/or verbally.

0. None. Does not apply. Easy-goingness was not mentioned as a category, nor can easy-goingness be inferred from the interviewee's description of the nominee.
1. Verbally easy-going. The nominee does not complain, argue, whine, or otherwise over-react in a verbal way. S/he operates within the normal framework of the classroom in terms of what is expected verbally (doesn't yell out answers, harass, etc.).
2. Physically easy-going. The student does not fight, lash out in a physical way, or over-react physically to situations. S/he follows classroom rules for appropriate physical conduct.
3. Other/can't rate. Some reference to easy-going behavior is made, but is not elaborated upon to the point where it can clearly be categorized as verbal or physical in nature. Responses coded here must be specified.

NOTE: Some degree of coder inference is allowed in coding this section. Keep inferences to a minimum. If E-0 is not coded, use as many of the remaining categories as apply.

F. Easy-going: reference point

How was it assessed by the subject that the nominee is easy-going?

0. None. Does not apply. Easy-goingness was not mentioned.
1. Observed interaction/hear-say. The nominee was observed as being easy-going in some way, or his reputation is one of being rather easy-going.
2. Personal interaction/first-hand. The interviewee has mentioned first-hand personal interaction with the nominee which indicates that s/he (nominee) is easy-going in nature. For example, "he doesn't fight with me".

NOTE: If E-0 is coded, then F-0 must also be coded. If E-1, E-2, or E-3 is coded, then F-1 and/or F-2 must be coded. (Both F-1 and F-2 may be coded.) To code F-2, specific reference to self (interviewee) must have occurred. Do not infer personal interaction.

G. Internal qualities

Was it mentioned that the nominee possesses qualities of honesty, kindness, niceness, a sense of humor, or other internal qualities that allow him/her to get along well with others? To be coded here, subjects must refer to qualities such as those noted above in global terms. In other words, labels must be used, rather than reference to specific behaviors which reflect more global qualities. For example, "he's funny" would be coded as G-4, whereas "he tells funny jokes" would be coded under section I, below.

0. None. Does not apply. Internal qualities were not mentioned.
1. Nice. The nominee was specifically labeled as being "nice".
2. Courteous/caring. The nominee was termed "kind", "polite", "considerate", or otherwise "caring for others".
3. Friendly. The nominee was referred to as being "friendly" or being a "good friend".
4. Funny. The nominee was noted to be a funny person.
5. Academically/intellectually endowed. The nominee was described as a "good worker", "best student", "smart", etc. Characteristics which can be categorized in the academic/intellectual (as opposed to social/emotional) realm are coded here.
6. Other. Specify here all references to global, internal characteristics which are not incorporated in categories G-1 through G-5 (above).

H. Internal qualities: reference point

How was it assessed by the interviewee that the nominee possesses such internal qualities as those outlined in section G (above)?

0. None. Does not apply. Internal qualities were not mentioned.
1. Observed interaction/hear-say. The nominee was observed to display one or more internal qualities such as those described in section G (above), or his reputation is one of being generally nice, friendly, polite, etc.
2. Personal interaction/first-hand. The nominee has directly displayed inner qualities such as those described in section G in his interactions with the interviewee. For example, statements such as "he's nice to me", or "she always says thank you when I help her with her math" are taken to indicate first-hand, personal interactional knowledge of the part of the interviewee.

NOTE: If G-0 is coded, then H-0 must also be coded. If G-1 is coded, then H-1 and/or H-2 must be coded. (Both H-1 and H-2 may be coded.) To code H-2, specific reference to self (interviewee) must have occurred. Do not infer personal interaction.

I. Specific behaviors

Code here when the subject mentions specific things the nominee says or does as attributions for getting along well with others. Labels or more global characteristics are not coded here, but are coded in categories G and H, above.

0. None. Does not apply. Specific behaviors such as those described below are not mentioned.
1. Compliant. Specific references to following rules or obeying others are coded here. Doing what others ask, as well as references to yielding to authority or staying out of trouble are coded here.
2. Give-aways. The nominee gives something to others. These give-aways are tangible, may include candy, gum, crackers, or pictures, and do not represent helpfulness as outlined in section A-2, above.

3. Work-oriented/Nondisruptive. The student is said to be interested in doing academic tasks or does not interfere with others doing their work. Specific mention of the student minding his/her own business, being quiet, not fooling around, or not being wild are coded here.
4. Humorous. The student was nominated because s/he does or says funny things. Examples may include telling jokes or acting funny.
5. Verbally polite. The nominee says polite things. Specific references to saying "please", "thank you", "excuse me", or apologizing to others are coded here.
6. Praises/compliments. The subject nominates the student because s/he compliments or says nice things to others. Specific references to praising others are also coded here. (Instances of supporting or reassuring others, i.e., the student says "nice try", are not coded here, but are coded in A-2).
7. Not socially inappropriate - verbal. The nominee does not make verbally hostile or aggressive remarks. Specifically, it may be said that the student does not make fun of others, does not talk behind others' backs, won't say nasty or naughty things, does not name call, talk smart, or talk back.
8. Sociable. The student is nominated because s/he interacts freely with others or is outgoing. Coded here are specific references to greeting or talking to others, a willingness to sit by or be with others, liking both sexes, or not making judgements about others on the basis of appearance.
9. Caring for others. The nominee shows concern for others, or cares about others' possessions. Specifically the student makes others happy, cries when someone moves away, won't break up friends, won't hold grudges, or will get back together with friends after a disagreement.
10. Other. Specify here specific behaviors or traits (i.e., physical appearance) that cannot be coded in categories I-1 through I-9, above.

J. Friend

Does the subject mention that the nominee is his/her friend?

0. No.

1. Yes.

KIDS WHO GET ALONG WELL

SPI

CODING SHEET

STUDENT ID																							
NOMINEE	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2
A																							
B																							
C																							
D																							
E																							
F																							
G																							
H																							
I																							
J																							

June 4, 1984

Unique System for SPI - Who is chosen?

A. Chosen type
1. Good worker.
2. Kid who gets along well.

B. Positive qualities of the chosen type
0. No.
1. Yes.

C. Negative qualities of the unchosen type
0. No.
1. Yes.

D. Positive personal preference (chosen type)
0. No.
1. Yes.

E. Negative personal preference (unchosen type)
0. No.
1. Yes.

F. Changeability of behavior
0. No.
1. Yes.

G. Positive effect/advantage (chosen type)
0. None.
1. Self.
2. Others.
3. Teacher.
4. Classroom climate.

H. Negative effect/disadvantage (unchosen type)
0. None.
1. Self.
2. Others.
3. Teacher.
4. Classroom climate.

I. Other
0. No.
1. Yes.

J. Mismatch or match
0. Mismatch.
1. Match.

Unique System for SPI - Who is chosen?

A. Chosen type

Who was chosen: the good worker or the kid who gets along well with others?

1. Good worker.
2. Kid who gets along well.

NOTE: Use this category to code teacher protocols and student responses to interview items P-1 and P-3.

B. Positive qualities of the chosen type

The hypothetical student was chosen because s/he possesses certain positive personal characteristics, or exhibits certain positive behaviors (i.e., is friendly, doesn't fight, gets work done on time).

0. No. Positive qualities were not mentioned.
1. Yes. Positive qualities were mentioned.

NOTE: Use this category to code teacher protocols and student responses to interview items P-2 and P-4.

C. Negative qualities of the unchosen type

Code here when negative qualities of the unchosen type are specified as reasons for selecting the chosen type (i.e., when the chosen type is the kid who gets along well, statements such as "the good worker wouldn't be a good friend" are coded here).

0. No. Negative qualities were not mentioned.
1. Yes. Negative qualities were mentioned.

NOTE: Use this category to code teacher protocols and student responses to interview items P-2 and P-4.

D. Positive personal preference for (or personal advantage gained by selecting) the chosen type

(For coding teacher protocols and student responses to student interview item P-2.)

The hypothetical student was chosen because the teacher's (assumed or known) goals are better met by having this type of student in his/her classroom, or the teacher is not personally inconvenienced by having this type of student in his/her classroom. Responses such as "I (teacher) like a classroom where everyone gets along", or "she wants somebody who doesn't talk while working", or "she won't always have to stop in the middle of a lesson and talk to ....." are coded here.

0. No.
1. Yes.

NOTE: References to positive effects on or advantages gained by the teacher made in response to interview item P-4 are not coded here; rather they are coded as G-3, below.

(For coding student responses to student interview item P-4.)

The hypothetical student was chosen because the (student) interviewee's goals are better met by having this type of classmate, or because the interviewee stands to personally gain by having such a person in his/her class (i.e., "I'd have another friend to play with"). In order to be coded here as a personal advantage to or positive effect on the (student) interviewee, specific reference to self (interviewee) must be made. Positive effects on or advantages gained by more class members than just the interviewee are coded as G-2, even though the interviewee may be a member of that group.

0. No.
1. Yes.

E. Negative personal preference for (or personal disadvantage suffered by selecting) the unchosen type

(For coding teacher protocols and student responses to student interview item P-2).

The teacher did not select the unchosen type because s/he does not further (or would interfere with) the teacher's (assumed or known) goals, or because s/he would be a personal invonvenience to the

classroom teacher. Responses such as "I wouldn't want someone who fights in my room" or "she doesn't like poor workers" would be coded here.

0. No.

1. Yes.

NOTE: References to negative effects on or disadvantages to the classroom teacher made in response to interview item P-4 are not coded here; rather they are coded as H-3, below.

(For coding student responses to student interview item P-4.)

The (student) interviewee did not select the unchosen type because s/he does not meet the interviewee's personal goals, or because s/he would have detrimental effects on the interviewee. Responses such as "I wouldn't want her calling me names" or "she would always bug me to help her with her work" are coded here. In order to be coded here as a negative effect on or personal disadvantage to the interviewee, specific reference to self (interviewee) must be made. Negative effects on more class members than just the interviewee are coded as H-2, even though the interviewee may be a member of that group.

0. No.

1. Yes.

F. Changeability of behavior (strategies for behavior change)

(For coding teacher protocols and student responses to student interview item P-2.)

The chosen type was selected because the teacher has (or may have) strategies for dealing with his/her undesirable behavior/characteristics. Presumably the chosen hypothetical student may be easier to work with in terms of behavior change than the one who is not chosen. For example, having chosen the good worker, a teacher response such as "I feel the social skills can be dealt with..." would be coded here. Similarly, a student response such as "She (the teacher) would choose the good worker because she can teach a kid how to be friends" is also coded here.

0. No.

1. Yes.

(For coding student responses to student interview item P-4.)

The chosen type was selected because the (student) interviewee has ways of dealing with the undesirable behavior/characteristics of the chosen hypothetical student, or because the interviewee can see ways the teacher or chosen hypothetical student himself can modify such undesirable behavior/characteristics. For example, having chosen the kid who gets along well, an interviewee response such as "I would teach her...to be a good worker" is coded here.

0. No.

1. Yes.

G. Positive effect/advantage (to someone other than interviewee) of chosen type

(Use G-0, G-1, G-2, and G-4 to code teacher protocols and student responses to interview items P-2 and P-4. Use G-3 ONLY IN CONJUNCTION WITH STUDENT RESPONSES TO STUDENT INTERVIEW ITEM P-4. Positive effects or personal advantages to the teacher which are mentioned in response to student interview item P-2 are coded as D-1, above.)

The chosen hypothetical student's behavior has a positive effect either on himself, his/her classmates, the classroom teacher, or the general classroom climate.

0. None. Not mentioned; does not apply.

1. Self. The chosen student's behavior is beneficial to the student himself (i.e., "he would be able to go out for recess", or "he could make lots of friends").

2. Others. The chosen student's behavior is beneficial to his/her classmates (i.e., "noone would get hurt if he doesn't fight", or "he wouldn't bug you while you were working").

NOTE: If the interviewee refers to an advantage or benefit gained by a group of classmates which may include the interviewee, that statement is coded here. References to positive effects on the interviewee alone are coded as D-1, above.

3. Teacher. Code here student references to any positive effect the chosen student's behavior may have on the classroom teacher. (This category applies only to student responses to interview item P-4.)
4. General classroom climate. Code here references to general positive effects of the chosen type's behavior on the general classroom climate (i.e., "because there wouldn't be many fights in the room").

H. Negative effect/disadvantage (to someone other than interviewee) of unchosen type

(Use H-0, H-1, H-2, and H-4 to code teacher protocols and student responses to interview items P-2 and P-4. Use H-3 ONLY IN CONJUNCTION WITH STUDENT RESPONSES TO STUDENT INTERVIEW ITEM P-4. Negative effects or personal disadvantages to the classroom teacher which are mentioned in response to student interview item P-2 are coded as E-1, above.)

The unchosen hypothetical student's behavior has a negative effect either on himself, his/her classmates, the classroom teacher, or the general classroom climate.

0. None. Not mentioned/does not apply.
1. Self. The unchosen student's behavior is detrimental to the student him/herself (i.e., "he wouldn't have many friends").
2. Others. The unchosen hypothetical student's behavior is detrimental to his/her classmates (i.e., "he might hurt the other kids", or "he would bug you while you work").

NOTE: If the interviewee refers to a detrimental effect on a group of classmates which may include the interviewee, that statement is coded here. References to detrimental effects on the interviewee alone are coded as E-1, above.

3. Teacher. Code here student references to any detrimental effects the unchosen student's behavior may have on the classroom teacher. (This category applies only to student responses to interview item P-4.)
4. General classroom climate. Code here references to general negative effects of the unchosen type's behavior on classroom climate (i.e., "because if he was in our class there would be a lot of fights").

I. Other

Specify any responses which do not clearly fit into any of the above categories.

0. None. Not mentioned/does not apply.
1. Yes. (Specify)

J. Mismatch or match

(Use this category to score student responses to interview items P-1 and P-3.)

Did the student response match that of his/her classroom teacher? In other words, (a) did the interviewee correctly guess which hypothetical student the teacher would select, and (b) did the interviewee select for him/herself the same student as the teacher selected?

0. Mismatch. The student interviewee did not correctly guess the teacher's choice, or the student himself did not choose the same hypothetical student as his/her teacher chose.
1. Match. The student interviewee correctly guessed which hypothetical student his/her classroom teacher would select, or the student him/herself chose the same hypothetical student as his/her teacher chose.

Teacher _____

Coding Sheet: Interview Items P-1 through P-4

		A	B	C	D	E	F	G	H	I	J
	T										
	S										
	T										
	S										
	T										
	S										
	T										
	S										
	T										
	S										
	T										
	S										
	T										
	S										
	T										
	S										

APPENDIX C

TEACHER'S RATING SCALE OF CHILD'S COMPETENCE

TEACHER'S RATING SCALE OF CHILD'S COMPETENCE

Child's Name _____ Teacher _____

For each pupil, please indicate what you feel to be the child's actual competence on each question, in your opinion. First decide what kind of pupil or "kid" he or she is like, the one described on the left or right, and then indicate whether this is just sort of true or really true for that individual. Thus, for each item, check one of four boxes.

	REALLY TRUE	SORT OF TRUE				SORT OF TRUE	REALLY TRUE
1.	☐	☐	This kid is capable of doing his/her school work.	OR	This kid can't do the school work assigned.	☐	☐
2.	☐	☐	This kid has good work habits.	OR	This kid lacks responsibility when doing his/her work.	☐	☐
3.	☐	☐	This kid has trouble getting along with other children.	OR	This kid is kind and helpful to other children.	☐	☐
4.	☐	☐	This kid can remember things easily.	OR	This kid often forgets what she/he learns.	☐	☐
5.	☐	☐	This kid needs many reminders to get his/her work done.	OR	This kid persists with work until its finished.	☐	☐
6.	☐	☐	This kid doesn't have many friends.	OR	This kid has a lot of friends.	☐	☐
7.	☐	☐	This kid almost always can figure out the answers.	OR	This kid has trouble figuring out the answers in school.	☐	☐
8.	☐	☐	This kid is good at following directions.	OR	This kid does not know what she/he is supposed to be doing.	☐	☐
9.	☐	☐	This kid resorts to tattling or squabbling when disputes arise.	OR	This kid handles problems with other children appropriately.	☐	☐

COMMENTS ON BACK ARE WELCOME.

NOTE: Adapted from Harter (1979).

APPENDIX D

TEACHER MEASURES

Teacher Priorities Questionnaire

CMIS Ratings

PLEASE RETURN THIS QUESTIONNAIRE TO THE BUILDING SECRETARY WITHIN 24 HOURS. THANK YOU.

Before responding to this questionnaire, please provide the following information by checking the appropriate boxes and filling in blanks where indicated.

Your responses to this questionnaire will remain confidential. To allow for possible follow-up, however, and also to process your honorarium, we need your social security number. The additional information requested below will help us in analyzing the data.

1. Social Security Number _____

2. Sex: ( ) Male ( ) Female

3. Present position: ( ) 3rd grade
( ) 4th grade

4. Teaching experience (as of the end of this academic year) _____ years

5. Amount of education

( ) Bachelor's degree
( ) Bachelor's degree plus additional credits
( ) Master's degree
( ) Master's degree plus additional credits
( ) Doctor's degree

As you respond to the questionnaire, please keep the following in mind:

There are no right or wrong answers to these items; they concern matters of value or preference upon which teachers disagree. Tell us what you think about each item.

For each item, select the one response which comes closest to what you think. Do not select more than one response.

Answer every item.

NOTE:

Respond to Part I of the questionnaire (items 1 through 30) on the answer sheet provided. Write only your social security number at the top of the answer sheet. (Ignore all other requests for personal information which appear on the answer sheet.)

Respond to Part II of the questionnaire on the questionnaire itself. Follow instructions provided at the beginning of Part II.

Thank you for your time and cooperation.

1. What do you see as the biggest problem in American education today?

   a. school finance
   b. declining enrollment
   c. disciplinary problems with students

2. Which of the following best describes your image of an ideal student?

   a. completes all work on time, neatly and accurately
   b. very thoughtful and caring for the needs of others
   c. does excellent work in the basics (reading, writing, and math)

3. Which of the following affective goals should teachers try hardest to accomplish?

   a. getting students very excited about learning new things
   b. getting students to work on their own
   c. getting students to cooperate with one another

4. If you could omit one of the following subjects from your teaching load, which would it be?

   a. reading
   b. mathematics
   c. science

5. Some classes are better than others. Think of an especially good class that you've had. What made it good?

   a. the class readily grasped ideas and new content
   b. the class was close knit and got along socially
   c. the class got right to work, managing its time well

6. Which of the following is most essential to successful teaching at the elementary school level?

   a. ability to communicate knowledge at a level that students understand
   b. ability to create a cooperative atmosphere in the classroom
   c. ability to foster student initiative in responding promptly and accurately to work assignments

7. What kind of reputation would you most like to have with your teaching colleagues?

   a. that my students learn to care about one another
   b. that my students develop excellent study skills
   c. that my students really learn the subject matter

8. What type of community would you prefer to teach in?

   a. suburban
   b. inner-city
   c. rural

9. Which is most apt to contribute to your feeling that you had a really good day?

   a. all students seemed to learn something new
   b. all students stayed "on task" for the day
   c. the students were especially helpful to each other

10. Which statement comes closest to one you might make?

    a. developing positive attitudes toward others is more important than learning subject matter
    b. our educational system must ensure that all students develop the basic skills necessary for promotion to the next grade level
    c. developing skills necessary for finding answers to questions is more important than learning specific content

11. Which of the following attitudes is most important for third and fourth graders to develop?

    a. taking responsibility for doing their assignments
    b. respect for others
    c. interest in learning what is taught

12. Which of the following affective goals for students do you consider to be the most important?

    a. to get students to value reading
    b. to get students to be able to decide for themselves what is good use of their time
    c. to get students to think about how their actions influence others

13. Which of the following reasons would you most like parents to give for selecting you as their child's teacher?

    a. children in your room really learn how to study
    b. children in your room really learn reading, math, and writing
    c. children in your room really learn how to make friends and get along with other people

14. In your classroom, which type of student tends to be viewed as a leader by his/her peers?

    a. the good athlete
    b. the attractive, well-groomed student
    c. the high achiever

15. Of the following, which is the most important means of motivating students?

    a. displaying work
    b. building on intrinsic interests
    c. using tokens as rewards

16. Which would you most prefer to hear your principal say about you?

    a. your students learn how to learn
    b. your students develop a good understanding of the subject matter
    c. your students learn the social skills necessary for being productive members of a group

17. Which best describes your overall emphasis in teaching?

    a. I concentrate my efforts on helping my students achieve grade level mastery (or above)
    b. I'm mostly concerned with developing interpersonal skills which prepare each student to be a responsible member of society
    c. I tend to emphasize the development of work skills and study habits which aid students in their learning

18. Which student behavior is most apt to cause you to alter your instructional pace?

    a. fatigue
    b. boredom
    c. confusion

19. What kind of reputation would you most like your classes to have with the building administrator?

    a. my students develop excellent study skills
    b. my students get excellent instruction in the basics (reading, writing, math)
    c. my students are well-behaved and respectful

20. Which of the following subjects do your students have the greatest difficulty with?

    a. science
    b. math
    c. social studies

21. Which of the following teaching colleagues would you most admire?

    a. one whose students develop the ability to take responsibility for their own learning
    b. one whose students always seem to learn the content necessary to prepare them to continue at the next grade level
    c. one whose classroom groups work harmoniously on cooperative learning tasks

22. When you are remembered by your students twenty years from now, what would you most like it to be for?

    a. that I got them to learn many important and worthwhile things
    b. that I cared about them, and taught them to respect the rights of others
    c. that I taught them to take responsibility for their own actions, and to become independent workers

23. Which of the following subjects receives too little emphasis in elementary schools today?

    a. math
    b. reading
    c. science

24. Which of the following do you consider most important for an elementary teacher to accomplish?

    a. fostering basic skill acquisition in reading, writing, and math
    b. getting students to take responsibility for doing their work carefully and getting it in on time
    c. fostering cooperation and positive interaction between students

25. Of the various things you do, which of the following do you consider most important?

    a. getting students interested in learning
    b. getting students to take pride in their work
    c. fostering students' respect for others

26. Which of the following statements most accurately describes the best class you've ever had?

    a. the students really liked and cared for each other
    b. the students worked very well independently
    c. the students grasped the subject matter easily

27. Some goals for students like the following are not primarily academic. Which do you consider to be the most important?

    a. for students to experience satisfaction in learning new content
    b. for students to take responsibility for completing classroom work
    c. for students to learn how to interact positively with one another

28. Which is most apt to contribute to your feeling that you had a really good day?

    a. students were extremely courteous and cooperative with one another
    b. students were very interested in what they learned that day
    c. the students who usually do not complete work assignments turned in their work on time and it was carefully done

29. Which of the following is most important for your students to learn?

    a. good work habits
    b. respect for the rights of others
    c. basic academic skills

30. If you could choose, which student would you select for your class?

    a. one who is very respectful and kind to others
    b. one who is eager and anxious to learn
    c. one who has the skills needed to take responsibility for his/her own learning

GUIDELINES FOR USING THE CMIS RATINGS

The component ratings provide numerical estimates of a variety of behavior, characteristics, and activities related to the two socialization orientations which are the focus of our study. The system is meant to provide a comprehensive numerical profile of a classroom in order to supplement other measures of classroom behavior, especially the classroom narrative records. These dimensions are derived from the study on effective management done by Emmer, Evertson, and Anderson (1980).

The ratings are made on 5-point scales. Unless otherwise indicated, these scales are defined as follows:

5 The behavior is exhibited frequently or the description is highly characteristic of the teacher (or classroom).

4 The behavior is exhibited often or the description is mostly characteristic of the teacher (or classroom).

3 The behavior occurs occasionally or the description is somewhat characteristic of the teacher (or classroom).

2 The behavior is exhibited rarely or the description is not very characteristic of the teacher (or classroom).

1 The behavior never occurs or is not at all characteristic.

GUIDELINES FROM CMIS STUDY

1. Room Arrangement

1a. Suitable traffic patterns. The teacher and students are able to move about the room easily, without interrupting each other's work. Lanes to the bathroom, pencil sharpener, and major work and group areas are open. Needed materials and supplies are accessible.

1b. Degree of visibility. The student desks/chairs and work areas, and any place the teacher spends much time (e.g., teacher's desk, overhead projector, reading group area) are placed so that a clear line of sight is available. The teacher can see all of the students; the students can see the teacher and relevant instructional displays during whole class instruction.

2. Procedures

2a. Appropriate general procedures. General procedures include those for bathroom use, coming-and-going from the room, lining up, using materials and supplies, and when the teacher leaves the room. Also included are rules or procedures governing the level of noise during different activities.

2b. Suitable routines for assigning, checking, and collecting work. Assignments are given clearly; procedures for communicating and maintaining a record of assignments and for handling previously absent students are established. Checking routines (passing papers, how to mark correct or incorrect answers, task demand, time used) are appropriate. Procedures for collecting and returning daily work are established and efficient; student work usually is returned within a day.

3. Meeting Student Concerns

3a. Degree of student success. Students are able to perform the tasks, complete assignments, and engage in activities planned by the teacher.

5 All students succeed in all observed activities.

4 High student success, but an occasional student may fail to make expected progress, or to complete work or activities.

3 Moderate to high student success, but several students fail; or generally poor performance in a limited area, with high success in most areas.

2 Moderate to low student success, with occasionally high failure rates.

1 Low student success and prevalent student failure. As many as half the class is frequently unsuccessful.

4. Managing pupil behavior

4a. Effective monitoring. The degree to which the teacher is aware of the behavior in the classroom. This skill requires visual scanning and alertness; the teacher avoids becoming engrossed in an activity with a single student or group of students, or fixation in one area of the room. The teacher sees misbehavior when it occurs, rather than detecting a problem only after it has escalated into a highly visible incident.

5. Disruptive student behavior.

5a. Amount of disruption. On this scale you are to estimate the amount of disruptive behavior that occurs in the classroom. "Disruptive behavior" refers to any pupil behavior that interferes with instructional, attentional, or work activities of the teacher or two or more other students. Excluded from this definition are inattentive behaviors and behaviors that involve only one or two other students, such as one student whispering to another, writing notes, or goofing off. However, if the behavior elicits the attention, although not necessarily the involvement, of numerous other students, then it would be classified as disruptive behavior. A 5 rating would be obtained if such behavior occurs with a high degree of frequency. Use a 5 to note a situation which is habitual and is a constant problem for the teacher and other students. A 4 would indicate frequent occurrences of such behavior. A mid-range rating would be obtained if such behaviors occur with moderate frequency, such as several on the average per hour, occasionally moderately or severely disruptive. A rating of 2 would indicate one or two instances per hour, almost always mild. A rating of 1 would indicate the complete absence of any such incidents. Note that "disruptive behavior" does not have to be as extreme as a knife fight. Rather, it is any behavior that distracts or interferes with two or more students attending to their work or the lesson.

6. Classroom Climate

6a. Task-oriented focus. The students and teacher work together toward the accomplishment of activities and assignments. The teacher emphasizes the importance of learning the knowledge and skills of the curriculum and the students react with cooperation and a willingness to do class activities.

CMIS RATINGS

Observer _____ Teacher ID # _____ Dates when obser. made ___/___ AM PM (circle)

___/___ AM PM

Total # of obser. _____

Date when rating ___/___

___/___ AM PM

___/___ AM PM

___/___ AM PM

I. SUITABLE TRAFFIC PATTERNS

1	2	3	4	5
	Not very characteristic of classroom.		Mostly characteristic of classroom.	

II. DEGREE OF VISIBILITY

1	2	3	4	5
	Not very characteristic of classroom.		Mostly characteristic of classroom.	

III. APPROPRIATE GENERAL PROCEDURES

1	2	3	4	5
	Not very characteristic of classroom.		Mostly characteristic of classroom	

IV. SUITABLE ROUTINES FOR ASSIGNING, CHECKING, AND COLLECTING WORK

1	2	3	4	5
	Not very characteristic of classroom.		Mostly characteristic of classroom.	

V. DEGREE OF STUDENT SUCCESS

1	2	3	4	5
Low student success, prevalent fail.	Moderate to low student success occasional high fail.	Moderate to high student success but several ss. fail.	High student success but an occasional student may fail to make progress.	All students succeed in observed activities.

VI. EFFECTIVE MONITORING

1	2	3	4	5
	Not very characteristic of teacher.		Mostly characteristic of teacher.	

VII. AMOUNT OF DISRUPTION

1	2	3	4	5
Complete absence of disruptive behavior.	1 or 2 instances of disruptive behavior per hour.	Averages several per hour occasionally severely disruptive.	Frequent occurrences of disruptive behavior.	High degree of frequency of disruptive behavior; constant problem.

VIII. TASK-ORIENTED FOCUS

1	2	3	4	5
	Not very characteristic of classroom		Mostly characteristic of classroom.	

APPENDIX E

FREQUENCY DATA

Table E1

Rule Frequency Data of Children in Interpersonal Versus Task Demands Classrooms, Categorized by Subdomain

Task Domain	Group IP	Group TD
A1 On/off task--nonsocial	4	9
A2 On/off task--in or out of seat	3	12
A3 On/off task--social	20	18
A4 Task completion	7	6
A6 Help-getting	1	0
A9 Following directions within task	0	2
A10 Following directions across tasks	4	1
A14 Performance	1	0
A15 Other/can't rate	0	1
	40	49

Interpersonal Domain	Group IP	Group TD
B1 Specific verbal	3	8
B2 Specific physical	19	17
B3 Specific nonverbal, nonphysical	2	1
B4 General, abstract	9	0
B5 General, concrete	2	3
B6 Other/can't rate	0	2
	35	31

Domain Unclear	Group IP	Group TD
	5	23

Procedural Domain	Group IP	Group TD
C1 On/off task--nonsocial	2	2
C3 On/off task--social	15	3
C4 Movement/space	31	34
C5 Supplies	2	4
C6 Responding/attention	6	11
C7 Throwing things	3	2
C8 Helping teacher	1	0
C9 Other/can't rate	2	3
	62	59

Table E2

"Worst Thing" Frequency Data of Children in Interpersonal Versus Task Demands Classrooms, Categorized by Subdomain

Task Domain	Group IP	Group TD	Interpersonal Domain	Group IP	Group TD	Procedural Domain	Group IP	Group TD
A1 On/off task--nonsocial	0	4	B1 Specific verbal	4	12	C5 Supplies	2	0
			B2 Specific physical	22	10	C7 Throwing things	1	0
A3 On/off task--social	0	1	B4 General, abstract	1	0		3	0
A4 Task completion	0	2	B5 General, concrete	2	0			
	0	7		29	22			

Domain Unclear	Group IP	Group TD
	0	3

Table E3

Extrinsic Consequence Frequency Data of Children in Interpersonal Versus Task Demands Classrooms

	Interpersonal Group			Task Demands Group		
	Rules	Worst Thing	Happiest Thing	Rules	Worst Thing	Happiest Thing
G2 Praise/criticism	1	2	0	1	2	0
G3 Immediate--tangible	8	1	1	10	4	0
G4 Immediate--activity/privilege	2	6	4	13	10	7
G5 Cumulative--tangible	1	0	0	2	0	0
G6 Cumulative--activity/privilege	1	0	0	4	1	2
	13	9	5	30	17	9

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