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ASSESSING STUDENT ENGAGEMENT IN LEARNING:
THE SHADOW STUDY

by
Charles Oliver Prickett

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A Dissertation Submitted to the Faculty of the
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In Partial Fulfillment of the Requirements
For the Degree of

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In the Graduate College
THE UNIVERSITY OF ARIZONA

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Charles O. Prickett

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DEDICATION

I dedicate this dissertation to my mother and father. My mother, Dr. Juanita Prickett, completed her Ph.D. at Illinois one day after her fifty-ninth birthday. She was a woman who was ahead of her time, and an inspiration to me. My father, J. Ralph Prickett, modeled integrity and intellectual curiosity all of his life. His love and support of my mother enabled her to complete her Ph.D. I am very fortunate to have been raised by such parents.

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ABSTRACT

The study examines the use of the shadow study technique in determining student engagement in learning. The students and teachers who comprise the subjects for this study were randomly chosen from a large metropolitan midwestern school district. The students were randomly selected from a list of sixth, seventh, and eighth grade students provided by the district. Teachers were also randomly selected from a list of tenured teachers provided by the district.

The shadow study, a quasi-ethnographic data collection technique, was used to gather data for this study. Observations were recorded every five to seven minutes over the course of a school day. Fifty-eight students and twenty-two teachers were shadowed. Fifty-eight volunteer observers shadowed the students, and twenty-two shadowed the teachers. Data were grouped by grade level, first impressions were recorded, and responses to lists of topics for student and teacher behavior were noted. These impressions and notes were then coded and tabulated.

Teacher behavior included initial impressions, instructional techniques, teacher-teacher interactions, student engagement, and teacher student interactions. Student behavior included initial impressions, instructional techniques, teacher-student interactions, and student-student interactions.

These data were compared to topics described in the literature as positively influencing student engagement in learning. Topics included: authentic instruction, small group instruction, the use of computers, project based learning, individualized instruction, hands-on learning, and small group and whole class discussions.

The study found the predominant instructional techniques in these classrooms to be very traditional. Teacher lecturing and student note taking and the use of worksheets prevailed. Students in these schools were actively engaged in learning about thirty percent of the time. Conversely, students were passively engaged or disengaged about seventy percent of the time. The shadow study technique, while inefficient, is an effective method to examine student engagement in learning.

CHAPTER 1
STATEMENT OF THE PROBLEM

I. INTRODUCTION

The basic thrust of this study is to determine through the use of the shadow study technique the level of classroom engagement in the learning process among middle school students. This was accomplished by looking at two questions. First, was the behavior of students in the classroom as reported by the data from the shadow study applicable in determining whether or not they were engaged in learning? Second, was the behavior of teachers in the classroom as reported by the data from the shadow study applicable in determining if the instructional techniques being utilized in the classroom contribute to or detract from student engagement in learning?

II. RATIONALE FOR THE STUDY

Teacher behavior and student achievement are responsible for much research and writing in the field of education. The process-product paradigm of educational research and writing is devoted primarily to the discovery of what teaching behaviors influence student achievement. This area of inquiry has given us many classics, including "Pygmalion In the Classroom", and many research articles by

Good, Brophy, Gage, and others.

Teacher behaviors greatly affect the fulfillment of children's needs. Teachers provide structure by clearly communicating their expectations, by responding consistently, predictably, and contingently, by offering instrumental help and support, and by adjusting teaching strategies to the level of the child. (Skinner and Belmont, 1983, p. 472)

Children who are engaged in school earn higher grades, score higher on standardized tests, and show better personal adjustment to school. (Kinzig, et al., 1995) This is essentially a prescription for individualized instruction, since each child is unique and has different levels of understanding in different subject areas.

But what of student behavior and student achievement? How is student engagement in learning assessed? What, if anything, does student behavior tell the educational community about student achievement? After all, it is student achievement that is the common measure of the educational process. Even though the student is the focus of the process of education, too little is known about how he or she engages in the process of acquiring knowledge and engages in the various instructional techniques utilized by teachers.

The shadow study technique was utilized to identify the factors of student engagement which were observable in the classroom. Although the relationship between student engagement and student achievement has been explored by many

researchers, there is little universal agreement on what constitutes student engagement, and even less agreement on how such engagement can be assessed. Many studies look backwards to determine student engagement. (Finn, 1993) Such research looks at which students are high or low achievers in school, and then attempts to correlate their behavior with their academic achievement.

This study, in contrast, looked first at student behavior, and determined what factors were present when a student was engaged in the learning process. This study also explored the relationship between student engagement in learning, and the utilization of middle level instructional techniques in the classroom.

III. STATEMENT OF THE PROBLEM

This study is an examination of what student engagement is and how it may be assessed by using the shadow study technique. The shadow study technique is a method of observing and recording qualitative data. This study also searched for relationships between student engagement in learning and middle level instructional techniques.

The shadow study has been utilized by researchers for decades as a quasi-ethnographic tool for gathering qualitative information. However, its application to gathering specific information on student engagement in

learning is not described in the literature. This study seeks to fill that gap.

The body of information and knowledge which flow from this study should provide the educational community with much needed information about how to effectively engage the adolescent student in the educational process. Indeed, if the shadow study proves to be an effective and reliable tool for the assessment of student engagement in learning, then educational researchers will be able to use this powerful methodology to provide answers to questions concerning the link between student behavior and instructional techniques in the classroom.

IV. RESEARCH OBJECTIVES

The objectives of this study are twofold:

1. What observable behaviors of students in a classroom setting indicate engagement in learning?
2. Are there any relationships between student engagement in learning and the utilization of middle level instructional techniques in the classroom?

V. LIMITATIONS

The following limitations apply to the findings of this study.

1. Studies which rely on qualitative research methodology

are limited due to the non-standardized data collection process.

2. The teachers selected for this study were chosen at random. In doing so, some teachers were not included in the study due to absence from school on the day the data was collected. Absent teachers were replaced by substitute teachers, and many of these were on survival mode and not representative of typical teachers.
3. The students selected for this study were chosen at random. Absent students were replaced by other students, some of whom were in special education classes, not a typical middle school environment.
4. This study did not include triangulation with several sources of data. Comparison of perceptions of observers with other stakeholders in the schools would contribute to greater clarity of the findings and may have increased the validity of this study.
5. This study did not include data on the reliability of the observers. Comparisons of observations from the same environment would give some measure of interrater reliability, and may have increased the validity of this study as well.

VI.

ASSUMPTIONS

The following are assumptions made during the course of

this study. These assumptions are important in terms of the limitations of this study, what valid conclusions may be drawn from these data, and their meaning in other contexts.

1. The observers accurately reported what they saw and heard in the classrooms.

2. The shadow study technique accurately reflects what transpires in the classrooms.

3. Random selection of subjects insures that the subjects are representative of the populations of the schools where shadowing took place.

4. This study is valid for the schools in which shadowing took place.

5. This study may not be valid for any other population other than the one studied.

VII. DEFINITIONS

The following are terms of art which appear in this study. Although these are by no means unknown words, their meaning in this study may be somewhat unique in this context, so these definitions are offered as guidance.

Adolescence: The transitional period between puberty and adulthood in human development, extending mainly over the teen years.

Authentic Instruction: An instructional technique that uses concepts and examples from the community and culture in which a school is located in order to illustrate the importance of learning to real life situations.

Block Scheduling: An instructional strategy which reserves blocks of time for instruction. Such blocks of time may be every day or certain days of the week, depending upon the curriculum.

Coding: The process of categorizing and labeling qualitative data so that they may be analyzed.

Cognitive Processes: The process of assimilating, storing, and utilizing information and knowledge in the human mind.

Cooperative Learning: An instructional technique in which learning results from interactions among students around the material to be learned.

Departmentalization: An organizational structure in schools where subject matter is taught by teachers who are specialists in their discipline.

Disengagement: A students' state of mind or behavior which prevents them from engaging in learning in school. Examples may include walking around, talking to friends, and playing games.

Engagement: A students' state of mind or behavior which involves them in learning in school. Examples may include reading assigned material, writing assignments, and doing research on classroom topics and projects. There are two types of engagement in this study:

Active Engagement: Students in this category are actively involved in learning in the classroom, evidenced by their asking for directions and help, reading and writing assignments, and performing assigned tasks.

Passive Engagement: Students in this category may appear to be involved in learning in the classroom, are not openly disengaged in learning, but may be just going through the motions in order not to get into trouble.

Ethnography: A branch of anthropology dealing with the scientific description of individual cultures. Based upon observation, this technique is the basis for the shadow study.

Extrinsic Motivation: Motivation that comes from outside the student, most often the teacher or the instructional technique.

Hands-On Instruction: An instructional technique that is characterized by the students performing physical tasks related to a pedagogical goal.

Interdisciplinary Curriculum: A model of presenting lessons of knowledge and information which recognizes and applies such lessons across academic disciplines.

Interrater Reliability: A method of determining the reliability of observers who record qualitative data by comparing their observations from the same forum.

Intrinsic Motivation: Motivation for learning that comes from within the student.

Instructional Techniques: Methods of presenting topics, information, and knowledge to students.

Middle School: A method of organizing schools typified by sixth, seventh, and eighth grades, and utilizing instructional techniques that are suitable for adolescents.

Off Task Behavior: In regard to students, behavior that shows they are not engaged in learning activities, e.g., walking around, talking to friends, playing games, and even asking distractor questions of the teacher.

On Task Behavior: In regard to students, behavior that indicates engagement in learning activities, e.g., reading, writing, discussing an assignment or project, doing research.

Process-Product Paradigm: A form of educational research and writing that posits a particular teaching method, or teacher training method, will result in student achievement.

Project-Based Instruction: An instructional technique typified by the assignment of a project to the students which is designed to accomplish an academic goal.

Shadow Study: A method of qualitative data collection comprised of recording behavior at intervals throughout a time frame which gives a series of snapshots of what transpired in that context.

Team Teaching: An instructional technique typified by cooperation between two or more teachers designed to achieve an academic goal or purpose.

VIII. ORGANIZATION OF REMAINING CHAPTERS

Chapter 2 provides a review of literature regarding engagement in learning by middle school students. Included in Chapter 2 is engagement in learning, characteristics of engagement and disengagement, engagement in middle school students, techniques and strategies for engaging young learners, developmentally appropriate instruction, and early adolescence and development.

Chapter 3 provides an overview of the research methodology employed in this study. Chapter 3 includes a history of the shadow study including ethnologists such as Fredrick Le Play, W.E.B. Du Bois, Margaret Mead, and the Barker and Wright study One Boy's Day. Also included is the study design, observer training, recording data, and conclusory remarks.

Chapter 4 presents the data and its' analysis. Topics include analysis of teacher shadow data, the process of coding, teacher behavior, initial impressions, teacher-student interaction, teacher-teacher interaction, instructional techniques, the physical environment, and student engagement. Student shadow data include initial

impressions, instructional techniques, teacher-student interaction, student-student interaction, the physical environment, student engagement, and conclusions.

Chapter 5 includes a summary of the data, conclusions drawn from the study, and recommendations for further research and suggests the implementation of educational programs which are designed to engage adolescent students.

CHAPTER 2
REVIEW OF RELATED LITERATURE

I. INTRODUCTION

The following is a review of the literature regarding engagement in learning by middle school students. The literature reviewed addressed the following topics: early adolescence and development; the relationship between developmental characteristics of early adolescence and the instructional environment; engagement in learning; factors associated with student engagement and disengagement in learning; the nature of engagement in middle school students; and strategies for engaging middle school students.

Thornburg's (1980) seven developmental characteristics of early adolescents should be taken into account in the design of a middle school curriculum. These characteristics are well supported in the literature regarding significant influences on student engagement. Thornburg posits the following list of developmental characteristics for adolescents:

1. Becoming aware of increased physical changes.
2. Organizing knowledge and concepts into problem-solving strategies.
3. Learning new social/sex roles.

4. Recognizing one's identification with stereotypes.
5. Developing friendships with others.
6. Gaining a sense of independence.
7. Developing a sense of morality and values.

These same characteristics are also echoed by the Carnegie Task Force report, Turning Points: Preparing American Youth for the 21st Century (1989). Turning Points strongly supports the creation of small groups, health education focused on adolescent development, teacher education programs which require an apprenticeship in middle grade settings, and extensive involvement by the community.

In this chapter, literature about theories of early adolescence and development of middle school students is reviewed, with particular attention paid to the myriad of changes the adolescent is experiencing.

The diversity of early adolescence is easily observed by walking through the halls of any middle level school during a passing period. One is overwhelmed by the differences in shapes and sizes of young adolescents as well as the variation of behavior. Not only is the early adolescent world one of diversity, it is one of opposites. (Clark & Clark, 1994, p. 62)

In addition, this chapter will also review the literature on student engagement in learning.

II. EARLY ADOLESCENCE AND DEVELOPMENT

The focus of this study is on middle schools. Some middle schools include grades six, seven, and eight, others

seven, eight, and nine, and some just seven and eight.

In the nearly three decades since the first eighth grade shadow study project was conducted, a tremendous amount of change has taken place in middle level education. The 6-8 school now significantly exceeds the 7-9 school as the most frequent middle level organizational arrangement. (Lounsbury and Clark, 1990, pp. 1-2)

Regardless of the grades included in a middle school, their students are unique in a variety of ways. The middle school is often the beginning of early adolescence and is also the beginning of a myriad of changes the student must adapt to. Adolescence is a time in the lives of students of profound change. Physical, social, and emotional development are key areas of change, as well as the discovery of new ways of processing information. Adolescents receive mixed messages about who they are and their place in society. Adolescents are very self conscious about the changes they are undergoing. They have special needs for socialization and friendship. The role the school plays in the lives of adolescents can be pivotal.

Middle school students receive contradictory information as to whether they are children, adolescents, or adults. (Lounsbury, 1988) When they are acting like kids, making noise, playing music too loud, and putting off household chores, they are children. When they are preoccupied with their appearance, or when their appearance does not please their parents, they are adolescents. When a

serious crime is committed, they are tried as adults. Would you put yourself in the shoes of an adolescent middle school student?

Adolescents are changing at a dramatic rate. (Lounsbury, 1988) Every aspect of their lives is in flux. Their bodies are changing at an accelerated rate. The social structure that they once enjoyed is not something that they can depend upon, as adolescents. Some childhood friends now won't talk to them, because of a variety of reasons. Their concept of reality is undergoing a radical transformation. They are experiencing new emotions in new situations. There is no aspect of the life of an adolescent that is not in flux. This is a time of great uncertainty and insecurity. There are popular polls for adults to assess the level of stress in their lives. Factors include a change in job, marital status, or residence. For the adolescent, everything seems to be changing at once. What is the level of stress for an adolescent? Probably off the scale.

Adolescents are extremely self-conscious about these changes. (Lounsbury, 1988) How would you feel if you suddenly began to grow breasts, or a mustache? Who is that new stranger staring at you in the mirror? How would you feel if you grew three or four inches in height this year? Not only would you have to purchase a new wardrobe, but you

would have to adapt to the world as you knew it, except now you bump your head on the branch in the back yard, and have to be careful getting in and out of the car. These problems are standard fare for adolescents.

There is a strong need for socialization. (Lounsbury, 1988) Adolescents seek out each other's company. Feelings of isolation and uniqueness in the world need to be shared. Adults, though part of the world, seem not to understand what the adolescent is experiencing. Adults seem to have conveniently forgotten what their thoughts and feelings were when they were going through adolescence.

Friendships may have a greater priority than grades. (Lounsbury, 1988) The changes the adolescent is undergoing are real, and sharing thoughts and feelings with friends about these dramatic changes help the adolescent adapt to a changing self and a changing world. Grades represent a contrived environment which is not concerned with the individual and their problems. It is little wonder that grades take a back seat to friendships.

Schools are capable of helping significantly or hindering seriously the development of middle school students. (Lounsbury, 1988) The adolescent spends more of his or her time in school than in any other social situation. Schools that do not address the unique needs of adolescents become a place to avoid, rather than a place in

which the adolescent may feel comfortable and engaged.

Elkind (1979) explores the mental development of adolescents, and bases his work on that of Piaget.

Around the age of eleven or twelve, most children begin to acquire a new set of mental abilities which Piaget (1950) speaks of as formal operations. These operations enable young adolescents to do many things that they could not do before. For example, formal operations enable them to understand metaphor and simile, to construct ideals and theories, and to think about thinking, their own and other people's. Moreover, formal operations enable adolescents to deal with many variables simultaneously, an ability that is required for abstract and experimental thinking. (Elkind, 1979, p. 76)

Elkind applies the work of Piaget to the cognitive processes engaged in by adolescents:

Formal operations enable the child to be aware of his hypotheses as hypotheses, and mental constructions, and permit him to test these against the evidence. In this way, formal operations enable the child not only to overcome his egocentric assumptive realities, but also to represent his own and other people's feelings and thoughts. (Elkind, 1979, p. 211)

Change is the norm, not the exception, for the adolescent. He or she is in the process of a physical metamorphosis. Mentally, the adolescent learns new ways of processing information, and of acquiring information. He or she is a child, adolescent, and adult, all at once. The adolescent's role in society is uncertain. Friendships and the social structures in which they live become very important, but they, too, are changing. The middle school, where the adolescent spends most of his or her time, often

does not address the needs of their students.

III. DEVELOPMENTALLY APPROPRIATE INSTRUCTION

Instruction that is developmentally appropriate for adolescents effectively engages their interests and their abilities. Because of the uniqueness of the adolescent, however, such instruction must also address their needs. First, communication must be the goal of any instructional program. (Elkind, 1970) The student must understand what the message is before any involvement in learning will occur. Second, recognition must be made that adolescents have special needs to modify their knowledge base and learn new facts and theories. (Elkind, 1970)

Instruction in the middle school, most educators agree, focuses on helping pupils understand themselves as unique individuals with special needs and important responsibilities. Instruction attempts to guarantee every pupil some degree of success in understanding the underlying principles and the ways of knowing in the academic disciplines. Certainly, instruction aims to promote maximum individual growth in the basic learning skills, while at the same time it permits the widest possible exploration of the world of knowledge and of the personal interests of each student. (George & Alexander, 1993, p. 141)

There are various strategies for engaging the adolescent learner, including the use of authentic instructional techniques, but a concerted effort must be made not to stifle the thirst for knowledge and for making sense out of the world, that each adolescent possesses.

(Elkind, 1970)

Students experiencing authentic curriculum and instruction are frequently given the opportunity to make choices and have some control over what they do and the way they do it. These choices give students a sense of efficacy which increases involvement (sense of ownership). Flexible use of time and natural working conditions foster engagement and productivity. (Clark & Clark, 1994, p. 96)

Elkind, a strong proponent of the work of Piaget, posits that a key to communicating with adolescent students is learning to speak their language.

Curricula that are appropriate to the child's conceptual level open up avenues of communication between child and child, and child and teacher, that are closed when the child cannot elaborate upon the material from his or her own experience and within his or her own conceptual system." (Elkind, 1979, p. 233)

Piaget has provided great insight into the different conceptual levels of children. Key to an understanding of Piaget's work is the idea that children are constantly observing their world and fitting such observations into a theoretical framework which explains their world in terms of their own experiences.

Piaget's image of the child has three important implications for the educational process. The first implication is that the child does not have his or her own world, but is learning to navigate the adult world. As such, the child is "an intellectual alien in an adult world." (Elkind, 1970, p. 84) This implies that the most important issue for education is to communicate effectively

with the child in terms he or she understands. This is a difficult problem because the child has formed his or her own ideas about the world based upon limited experience and knowledge. These limited ideas are also expressed differently by children. Therefore, for the process of education to succeed, we must first be able to understand the child before the child is to understand our adult world.

The second implication is that the process of education for the child is constantly changing. By virtue of experience in the world, the child is constantly rearranging and refining their concepts and ideas about the world in order that they coincide with their experiences. "The child comes to school with his own ideas about space, time, causality, quantity, and number. His ideas in these areas are, however, incomplete in comparison with those of adults." (Elkind, 1970, p.84) The process of education, then, must assist children in modifying their existing knowledge and help them learn new information.

Still a third implication for educational philosophy implicit in the view of the child as a cognitive alien is that the child is by nature a knowing creature. ... This means that the child is trying to construct a world view on his own and is limited only by his abilities and experience. Education need not, then, concern itself with instilling a zest for knowledge within the child since the desire to know is part of his makeup. Rather, education needs to insure that it does not dull this eagerness to know by overly rigid curricula that disrupt the child's own rhythm and pace of learning. (Elkind, 1970, p. 84-85)

For Piaget learning results in the modification of behavior. Two factors, maturation and experience, determine the nature of learning. "Since learning in the broad sense corresponds to what we usually mean by development, and learning in the narrow sense refers to what we usually mean by learning, we might simply say that for Piaget, development determines learning." (Elkind, 1970, p. 91)

If development does determine learning, then the curriculum in middle schools should reflect child development research and theory.

What is needed is a new breed of curriculum writer.

People who write curriculum should be steeped in child development and in the subject matter they are writing about. Until we get this sort of person into the curriculum field, we are almost certain to have these perpetual swings from content-centered to child-centered curriculum materials, neither of which is entirely satisfactory. (Elkind, 1979, p. 227)

There are three curricula that the student has to cope with.

First, there is the developmental curriculum determined by the interaction of the child's mental abilities and his or her need to make sense out of the physical world in which he or she lives. ... A second curriculum with which the child has to cope is the school curriculum, the sequence of attainments in math, science, language arts, social studies, and fine arts that is mandated by society. In addition to the developmental and school curricula there is a third curriculum with which the teacher must deal; this might be called the personal curriculum. The personal curriculum, the child's individual learning priorities, is determined both by the developmental curriculum and by his or her own individual needs, interests, abilities, and talents. (Elkind, 1979, p. 239)

A developmentally appropriate curriculum for adolescents involves many factors, all of which may be different for each student. First and foremost, such a curriculum must effectively communicate with the students. Without a mutual understanding of what is expected by both the teacher and the student, and without addressing such expectations in the curriculum, the middle school experience will become a means of exclusion rather than inclusion for the adolescent learner. This may involve learning a different linguistic mode in order to develop an effective means of communication.

Such a developmentally appropriate curriculum must recognize that the middle school student needs to modify his/her knowledge base in order to fit such knowledge into that of the community and culture. Toward this end, the curriculum should include authentic activities which accurately reflect the knowledge and practices of the community in which the student lives. In the process of teaching new facts and changing basic beliefs, the school curriculum must be careful not to stifle the inherent thirst for knowledge, the search for making sense out of the world, which are part of the make up of every young learner. The school must not impose an overly rigid curriculum which disrupts the child's own rhythm and pace of learning.

IV. ENGAGEMENT IN LEARNING

"Few studies define engagement in the same manner. ... Studies tend to examine student engagement on an individual basis, most often through self-reports of students."

(Painter, 1998, p. 50) Arends (1994) defines engaged time for students as "The amount of time students actually spend on a particular subject or learning activity." (Arends, 1994, p. 528) Shockley and Johnston (1992) define engaged time as "the amount of time that students actually spend interacting, studying, and/or discussing a subject or learning objective within the allocated timeframe. It is, in other words, the proportion of allocated time spent 'on task'." (Shockley & Johnston, 1992, p. 131)

Skinner & Belmont (1993) viewed student engagement as a function of a reciprocal relationship of teacher behavior. "Student engagement was assessed with children's reports of their behavior and emotion in the classroom. Teacher perception of student engagement was measured with teachers' reports of individual children's behavior and emotion in their classrooms." (Skinner & Belmont, 1993, p. 574)

Engagement in academic work declines as grade level increases. Reasons for this are not entirely clear, but middle school students are in the middle in the engagement process. "While elementary students report being most engaged and high school students least, middle school

students rank between them." (Marks, 1995, p. 21) Research is needed to uncover some of the reasons for this decline in student engagement in learning. Since it gets progressively worse as the student's contact with formal schooling increases, perhaps we should be looking at the school as the culprit, not the student.

Newmann, Wehlage and Lamborn (1992) articulated a theory of student academic engagement that drew upon various sociological theories. At least two of the bases for their theory are found in other sources, those of school membership and authentic academic work. Their definition of engagement is somewhat narrow, focusing upon knowledge and skills, rather than development of personality and cultural or community skills. Marks (1995) defines engagement as "students' psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote" (Marks, 1995, p. 8). Newmann et al. (1992) proposed three bases for student academic engagement: (1) the fundamental human need to develop and express competence, (2) school membership, and (3) authentic academic work.

Finn (1989, 1993) has also proposed a model for student engagement. Broader than the definition offered by Newmann et al. (1992), engagement, according to Finn's conceptualization, is student involvement with school.

Although this sounds somewhat simplistic, Finn explains that his theory encompasses all aspects of school involvement, including the classroom and extracurricular activities, and extends to behavior as well as feelings.

Engagement may take an affective or behavioral form. Affectively, engagement implies a sense of belonging and an acceptance of the goals of schooling. Behaviorally, engagement is a continuum of developing participation (i.e., compliance with school and classroom procedures, taking initiative in the classroom, becoming involved in school activities and, ultimately, taking part in school governance). Participation leads to academic success, which, in turn, influences identification with school (i.e., the affective dimension of engagement-valuing, belonging). Identification increases the likelihood of future engagement. The depiction of engagement as a product of cumulative school experience is a strength of Finn's model. (Marks, 1995, pp. 8-9)

Newmann (1989) also addresses different levels of academic engagement:

Engagement in academic work is the student's psychological investment in learning, comprehending, and mastering knowledge or skills. Students' levels of engagement in academic work can be inferred from the way they complete academic tasks; the amount of time they spend, the intensity of their concentration, the enthusiasm they express, and the degree of care they show. (Newmann, 1989, p. 34)

Engagement is the effort the children exert in performing cognitive tasks. The student's efforts have both behavioral and affective dimensions. "The term engagement encompasses children's initiation of action, effort, and persistence on schoolwork, as well as their ambient emotional states during learning activities." (Skinner, et

al., 1990, p. 24) This theory differs from Finn's model in the affective realm. Finn's affective dimension includes feelings of belonging in the school environment, whereas Skinner's theory only includes emotional states during learning activities.

Engagement in learning has both behavioral and affective characteristics. Definitions of engagement in learning include identifying those students who perform well in school and on standardized tests, who show good personal adjustment to school, who respond positively to their teacher's instructional behavior in the classroom, who have a psychological investment in the learning process, who feel they belong in the school environment, who actively participate in school activities, and who invest time and effort to learn the knowledge and skills being offered in school.

V. CHARACTERISTICS OF ENGAGEMENT AND DISENGAGEMENT

When schools significantly assist in the development of adolescents, they are engaging students in the learning process. When schools hinder seriously the development of such students, they disengage their students from the learning process.

The problem of disengagement is especially acute for middle and high school students. During adolescence, students begin to develop new patterns of social and

sexual relations that absorb a great deal of their energy and attention. At the same time, they also need to master knowledge that they apparently consider foreign to their interests. (Newmann, 1989, p. 34)

Newmann enlarges upon the positive attributes of engagement, and the negative consequences of disengagement.

Engagement is more than motivation or the general desire to succeed in school. It involves participation, connection, attachment, and integration in particular settings and tasks. As such, engagement is the opposite of alienation: isolation, separation, detachment, and fragmentation. ... Thus, engagement helps to activate underlying motivation and can also generate new motivation. (Newmann, 1989, p. 34)

Research in the area of student engagement in learning has identified some of the characteristics of student engagement. These include controlling the academic process, giving the student a stake in planning his or her education, understanding the importance of educational goals, and becoming engaged in the educational process.

Students are effectively engaged in learning when they see the importance of their educational goals. (Adams, 1996) "When students participate in the selection of group or individual goals, and then decide on how to achieve those goals, they develop a sense of success and ownership for their learning." (Adams, 1996, p. 31) Students are engaged in their learning when they have input into the content or when they engage in authentic activities, a curriculum which has meaning for them through opportunities to solve problems and situations that deal with real life. (Adams, 1996)

One of the strongest factors of student engagement, in addition to goal setting and participating in authentic learning activities, is that of believing that he/she has control over the outcome of the learning experiences.

It was predicted that children who believe that academic outcomes are under their own personal control (high control beliefs) would be more engaged in school and earn better grades and achievement scores. This prediction is consistent with almost all expectancy models of motivated behavior. (Skinner, et al., 1990, p. 24)

Student engagement in the learning process occurs when the student believes he or she has control over academic successes and failures.

Empirical evidence has accumulated indicating that children who believe that doing well in school is contingent on their own actions perform better than those who do not (Seiligman, 1975). Similarly, children who believe that good grades are caused by internal and controllable causes (like effort; Weiner, 1979), who believe that they can produce the responses that lead to desired outcomes (Bandura, 1977), or who believe that they possess high ability (Harter, 1981; Stipek, 1980) perform better academically. These children score higher on tests of intelligence and achievement and earn better grades in school than children who do not hold these beliefs. (Skinner, et al., 1990, p. 22)

Skinner and Belmont (1993) support the theory that engagement takes both affective and behavioral forms. This is also very similar to Finn's (1989, 1993) model of student engagement, discussed earlier.

Children who are engaged show sustained behavioral involvement in learning activities accompanied by positive emotional tone. They select tasks at the border of their competencies, initiate action when

given the opportunity, and exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest. (Skinner and Belmont, 1993, p. 572)

Engaged learners exhibit many different identifiable characteristics. These include exercising control over the academic process by participating in the setting of educational goals, feeling that doing well in school is contingent on their own actions, believing that they possess high ability, developing a sense of success and ownership for their learning, being involved in opportunities to solve real life problems, sustaining involvement in learning activities, selecting tasks at the border of their competencies, exerting intense effort and concentration, participating actively in all aspects of school, and showing positive emotions including enthusiasm, optimism, curiosity, and interest.

Disengagement from the learning process is a common problem for the adolescent learner. Students learn tactics and strategies which are effective in preventing learning and teaching.

Students, even those considered very bright, would use tactics such as asking questions or feigning confusion to force Mrs. Dee to become more and more concise and explicit. In other words, the students influenced the teacher to do more and more of their thinking. (Arends, 1994, p. 175)

"The opposite of engagement is disaffection.

Disaffected children can be bored, depressed, anxious, or even angry about their presence in the classroom."

(Skinner and Belmont, 1993, p. 572) They can refuse to participate in learning activities and exhibit hostility toward teachers and classmates.

Disengagement or alienation from school also has several identifiable characteristics. These include feelings of depression, boredom, anxiety, and anger. Such students often are withdrawn from school activities, and are rebellious toward teachers and classmates. A failure to engage in the important learning and social structures of school often gives the adolescent feelings of isolation, separation, detachment, and fragmentation.

"Alienation toward schooling seriously detracts from classroom engagement for students at all grade levels. Alienation from school is especially detrimental to classroom engagement for middle school students." (Marks, 1995, p. 25) The vulnerable adolescent in middle school needs appropriate instructional methodologies to succeed in school and to become an active participant in their community and culture.

VI. ENGAGEMENT IN MIDDLE SCHOOL STUDENTS

The above factors required for developmentally appropriate instruction are applicable to engaging middle

school students in the learning process. However, there are also factors which foster engagement in middle school students and complement those which are developmentally appropriate. Such factors include extrinsic rewards, intrinsic interest, social support, and a sense of ownership in the educational process. The belief that work will result in academic achievement, and the student's sense of belonging in school, of being liked, included, and respected by teachers, must be cultivated.

There are five factors, including intrinsic motivation, which Newmann's (1989) research suggests are important for student engagement in schoolwork: "students' need for competence, extrinsic rewards, intrinsic interest, social support, and sense of ownership." (Newmann, 1989, p. 34)

In order to keep students engaged in the educational process, they must become, and remain, personally involved. Their involvement is dependant upon what they perceive as competent behavior, that which is expected to provide benefits to them as students. "When efforts to act competently are successful, the student continues to make a personal investment, and the cycle continues." (Newmann, 1989, p. 35)

"Only when students perceive that academic achievement will lead to rewards they value and, further, believe that their own hard work will result in academic achievement,

will their engagement increase." (Newmann, 1989, p. 35)
Such extrinsic rewards will gain the attention of the adolescent learner. But in order to sustain such interest, eventually the student will have to perceive intrinsic benefits to the learning process.

However important extrinsic and intrinsic involvement in learning are for the adolescent student, there must be a deeper understanding of the importance of cultural mores and their personification by the school staff.

Success in academic work is important, but there is more to life than academic achievement. Students' moral worth and dignity must be affirmed through other avenues as well, such as nonacademic contact with staff in athletics, music, outings, and personal advising. ... Engagement with learning and internalization of knowledge depend to a large degree on the opportunities students have to "own" the work. ... At a minimum, this requires flexibility in the pace and procedures of learning, opportunities for students to ask questions and to study topics they consider important, and opportunities for students to construct and produce knowledge in their own words, rather than merely parroting the language of others. (Newmann, 1989, p. 35)

"Early adolescence is a developmental period in which school belonging, psychological membership, and the socioemotional support of teachers and other students are likely to have an especially significant influence on motivation and engagement." (Goodenow, 1992, p. 5-6)

Carol Goodenow (1992) conducted a study which examined the association between school membership and motivation and achievement of 301 urban adolescents in two multi-ethnic

urban junior high schools. A significant result of this study is that:

A student's subjective sense of belonging in the school -- of being liked, included, respected by teachers and others in the school -- appears to have a significant impact on several measures of motivation, and through motivation on engaged and persistent effort in difficult academic work. As students feel themselves to be full and valued members of the school, they are willing to put forth more effort and to commit themselves more fully to the purposes of the school. Conversely, as they are more fully engaged and successful, they are accorded more acceptance and respect from others in the school. (Goodenow, 1992, p. 16)

Goodenow posits that a students' feeling of membership in school and motivation in school go hand in hand.

To summarize, this study has presented evidence to suggest that psychological membership may have a substantial influence on students' school motivation. ... We need to recognize that the result of a failure to attain a full and legitimate sense of membership in the school as a social system may, for many students, be lowered motivation, less active engagement, and ultimately diminished academic achievement or even school withdrawal. (Goodenow, 1992, p. 22-23)

"Engagement in school may be viewed behaviorally--that is, whether a student participates regularly in classroom and school activities--or affectively--whether a student feels that he/she 'belongs' in the school setting and values school-relevant outcomes." (Finn, 1993, p. 15)

Piaget has helped educators transform their view of the adolescent from that of annoying behaviors, to accepting as typical the behaviors associated with adolescence. This new frame helps educators to view the reactions of young people

a stronger prediction of later motivation and school success than IQ and academic achievement." (Kinzig, 1995, p. 31)

Student motivation is linked in important ways to student cognitive engagement and academic performance in the classroom. Students who believed they were capable were more likely to report use of cognitive strategies. Such students were self-regulating, reporting more persistence at difficult or uninteresting academic tasks. (Pintrich & DeGroot, 1990)

These findings suggest that self-efficacy plays a facilitative role in relation to cognitive engagement as suggested by Schunk (1985), but that the cognitive engagement variables are more directly tied to performance. This implies that teaching students about different cognitive and self-regulatory strategies may be more important for improving actual performance on classroom academic tasks, but that improving students' self-efficacy beliefs may lead to more use of these cognitive strategies. (Pintrich & DeGroot, 1990, p. 37)

"Cognitive theorists believe that when children are faced with new experiences that challenge their current cognitive level, they are pushed to explore, manipulate and investigate possible solutions to resolve their conceptual conflict. The cognitive processing required produces intrinsic motivation." (Kinzig, 1995, p. 32)

Authentic instruction is one of the most effective methods for involving adolescent students in their learning. For students at all grade levels, authentic academic work is the most powerful contributor to engagement. "For middle

school students, the effect of authentic work is most striking." (Marks, 1995, p. 26) "Among elementary schools the level of authentic work reported by students in the classroom does not influence average levels of classroom engagement. In middle and high schools, however, this contextual feature strongly differentiates engagement levels among classrooms." (Marks, 1995, p. 27)

Brown, Collins, and Duguid (1989), address authentic activities and their absence from the classroom. "...Students may pass exams (a distinctive part of school cultures) but still may not be able to use a domain's conceptual tools in authentic practice." (Brown, et al., 1989, p. 34) One of their main inquiries is what kind of skills are being learned in school, and how such skills translate to the real world of the student. According to the authors, school is a contrived setting that is supposed to result in the students learning a set of skills which will help them become productive members of their culture. Unfortunately, the school rarely provides real situations in which to apply learning in the context of the students' culture.

A school experience becomes authentic when it involves using "tools in wrestling with problems of the world." (Brown, et al., 1989, p. 34) "Tools" refers to the domain of conceptual tools that may be utilized in solving

problems. The problems are not those in a textbook, or part of the usual curriculum in schools. Such problems are actual problems which are part of the culture of the student. Hence, a school experience becomes authentic when it is presented in the context of the student's culture.

Authentic classroom tasks reflect what practitioners from the student's culture actually do. Classroom tasks, unless they include the context of the activity in the student's culture, may "fail to provide the contextual features that allow authentic activity." (Brown, et al., 1989, p. 34)

It is important to recognize the school culture and the culture of the student in which the school is located.

"When authentic activities are transferred to the classroom, their context is inevitably transmuted; they become classroom tasks and part of the school culture.

...Consequently, contrary to the aim of schooling, success within this culture often has little bearing on performance elsewhere." (Brown, et al., 1989, p. 34) Hence, school culture is a specific context, one that "remains hermetically sealed within the self-confirming culture of the school." (Brown, et al., 1989, p. 34)

Classroom tasks must reflect the context of the student's culture. Such tasks include culturally relevant knowledge in the environment in which it is used. Brown,

Collins, and Duguid (1989) advocate authentic learning experiences through cognitive apprenticeships. Such apprenticeships, similar to those in the crafts, "try to enculturate students into authentic practices through activity and social interaction..." (Brown, et al., 1989, p. 37)

The best motivation is student interest. Giving students choices about the content, making it relevant, and showing students how they can transfer their learning to their own lives will bridge the gap between detached participation and active engagement in the experience. When students construct meaning from their own experiences, they are engaged in their learning, and they are more likely to retain the information. (Adams, 1996, p. 30)

"If we want to boost achievement far more, however, we should pay attention to the ways that conditions of schooling and strategies of reform can enhance or undermine student engagement in academic work." (Newmann, 1989, p. 36)

There is no topic that interests or engages the middle school student more than the process of socializing. Even though this has been well illustrated in the literature, the educators in the classroom have not tapped into this mother lode of engaging students in the learning process. The social curriculum needs to become an integral part of the middle school curriculum.

There are two aspects of the social curriculum that should be emphasized: the planned social curriculum and the unplanned social curriculum (hidden

curriculum). There are many planned activities which take place at school that facilitate socialization both in and out of the classroom. ...Some of these experiences include cooperative learning and task groups, student activities, participation in school governance, peer mediation, sports, and youth service. (Clark & Clark, 1994, p. 101)

Thus, in the end, it is the individual student who must be addressed if educators are to engage him or her in the learning process. The prime motivator for engagement is student interest. This is an individual matter, not a generic prescription for the masses of adolescents in our schools. School must become a real place in the student's community and culture, not a contrived environment designed by persons who have forgotten the confusion and uncertainty of growing up in a complex society. In addition to student interest and authentic activities, middle school curriculum specialists (well informed about adolescent mental, physical, social, and emotional development) must include in their bag of tricks, cooperative learning, ownership in the education process, control over academic success, and intrinsic and extrinsic motivation. These instructional strategies engender a positive attitude toward school and benefit each individual student.

CHAPTER 3
METHODOLOGY

I. INTRODUCTION

This chapter examines the shadow study technique and its' use in sociology, anthropology, and education. Because the shadow study technique is often employed by lay persons rather than researchers, the amount and type of training the observers receive is important. However, in the five previous national middle school shadow studies, observer training sessions was minimal. (Clark & Clark, 1994) In this study, the two hour training session represented a departure from past procedures, and was an important part of the study design.

Chapter 5 contains recommendations for observer training. These recommendations are made because many observers noted the race and gender of students, teachers, and administrators in the schools where they were collecting data. Race and gender have nothing to do with the research objectives of this study, and show the degree to which racism is a part of the culture of many Americans. The recommendations which appear in Chapter 5 should strengthen the communities by making them aware of the presence of racism in their thinking. They may also strengthen the validity of shadow study observations and encourage other

researchers to use this powerful research tool.

II. A HISTORY OF THE SHADOW STUDY

This study utilized the shadow study technique, a quasi ethnographic method of recording qualitative data.

Where ethnography and education are joined, we find the longest, most secure attachment to qualitative research, for ethnographers have long been comfortable with the efficacy of their nonquantitative means of inquiry. The fruits of their labor are manifest in the approximately twenty-year-old Council on Anthropology and Education and its equally old publication, once a newsletter and now an established periodical, called Anthropology and Education Quarterly. The marriage of anthropology and education, among the most robust of the links between education and a social science discipline, is further apparent in the Holt, Rinehart and Winston Case Studies in Education and Culture series. (Eisner and Peshkin, 1990, pp. 5-6)

However, the methodologies employed in qualitative research have a much earlier genesis than the marriage between education and anthropology. This study employed the methodology of "observation" for collection of data. Some researchers may choose to call this technique "participant observation", since the observer was present in the classrooms of the subjects, and shared their social climate. However, one of the first social scientists to utilize these methods, Frederick LePlay, termed his technique "observation" even though he actually lived with his subjects as he studied them. Le Play, Du Bois, and Mead are of historical significance, but are not current experts.

A. FREDRICK LE PLAY

During the late 1800's, the Frenchman Frederick LePlay studied working class families through the method that social scientists writing in the 1930's labeled "participant observation". LePlay himself called it "observation" and employed it to seek a remedy for social suffering. As participant observers, LePlay and his colleagues lived with the families they studied; they participated in their lives, carefully observing what they did at work, at play, at church, and in school. (Bogdan and Biklen, 1992, p. 4)

B. W.E.B. DU BOIS

There are many historical accounts of the use of qualitative methodologies in data collection. These include social surveys made by Charles Booth in the 1880's of London's poor, and the first social survey in the United States.

W.E.B. Du Bois undertook the first social survey in the United States. Published in 1899 as The Philadelphia Negro, this survey represented almost a year and a half of close study, including interviews and observations with informants living primarily, though not completely, in the city's Seventh Ward. The purpose of the research was to examine "the condition of the forty thousand or more people of Negro blood now living in the City of Philadelphia." (Bogdan and Biklen, 1992, p. 7)

C. MARGARET MEAD

Perhaps the earliest application of anthropology to U.S. education was made by the anthropologist Margaret Mead (1942, 1951). Concerned particularly with the school as an organization and the role of the teacher, she employed her fieldwork experiences in less technological societies to dramatize the fast-changing educational scene in the United

States.

Mead examined how particular contexts—the kinds of schools she categorized as the little red schoolhouse, the city school, and the academy—called for particular kinds of teachers and how these teachers interacted with students. She argued that teachers needed to study, through observations and firsthand experiences, the changing contexts of their students' socialization and upbringing in order to become better teachers. (Bogdan and Biklen, 1992, p. 10)

One of the earliest and most interesting studies utilizing quasi ethnographic procedures which incorporate shadow study techniques is the Barker and Wright classic, One Boy's Day.

D. ONE BOY'S DAY

One of the earliest shadow studies involving school children was conducted in 1949 by Barker and Wright. "One Boy's Day is a specimen of the behavior and of the cultural and psychological habitat of a child. It is a field study in psychological ecology." (Barker and Wright, 1951, p. 1) One Boy's Day is a record of what a seven-year old boy did in his home, his school, his neighborhood, and his town, from the time he awoke one morning until he went to sleep that night.

Barker and Wright posit that their data are both objective and interpretive. But their data, like this study, lack evidence of interrater reliability, other than the general similarity of data from different observers. Barker and Wright state,

It is an objective record because it describes the actions of Raymond and the physical and social conditions of his life that could be seen and heard by skilled observers. It is an interpretive record too because it reports what these observers inferred as to the meanings to the boy of his behavior and of the persons, things and events that he saw and heard and felt through the day. (Barker and Wright, 1951, p. 1)

Barker and Wright recognized the influences upon behavior which may be caused by the observer.

The presence of an observer of behavior often changes the psychological situation and hence the actions and feelings of the person observed. ... It is probable that the interference of an observer in field studies can seldom be reduced to zero. The problem is making the interference minimal, of defining it, and of holding it constant. (Barker and Wright, 1951, p.6)

Barker and Wright posit that observer influence upon behavior is not a problem, but may be viewed as having it's own significance.

For a number of problems the fact of observer influence is not disturbing. One thing to be considered here is that any interaction of Raymond with an observer is real behavior with significance in its own right. Every such interaction can be accepted as telling something about Raymond as a particular boy of Midwest. (Barker and Wright, 1951, p. 7)

"The observers of Raymond Birch approached their task with the hope of seeing and recording everything he did. The use of a number of observers with differing unconscious biases and perceptual bents insured the record against any one person's idiosyncracies." (Barker and Wright, 1951, p. 7-8)

Throughout the day, Raymond seems very aware of the

presence of the observer. So much so, that they exchange talk, and glances, even while Raymond is engaged in school work. The distinct impression is that the observer is an integral part of the social interaction of this child, and an important part of the environment in which Raymond is interacting. The author's explanation of such interaction between observed and observer as "real behavior with significance in its own right" is unrealistic and turns a blind eye to these significant influences upon Raymond's behavior. In this study, the data which record the behavior of the students do not show any interaction between observer and observed.

For example, there are many references during the times Raymond is in his seat at school where he turns and smiles broadly at the observer. Raymond also holds the door for the observer at recess and at noon time, and waits for him or her to catch up with him on his meandering trip home or to the town square. The observer even has breakfast coffee, lunch with Raymond and his family, and dinner coffee as well. The observer becomes a major part of Raymond's day, and his behavior shows it.

E. SHADOW STUDIES IN SCHOOLS

The shadow study technique has been applied to schools in order to determine the influence of instructional programs on middle school students. There have been five

national shadow studies conducted on middle school students which included grades six through nine.

The earliest shadow study was in 1964, and was conducted by Lounsbury and Marani. This study was national in scope, and focused upon eighth graders. At that time middle schools were relatively new. Junior high schools were filling the place of today's middle schools. The title of this study, The Junior High School We Saw: One Day in the Eighth Grade, tells a lot. First, the authors were only reporting what they actually saw in the classrooms. Second, this study is about one day in an eighth grade, similar to One Boy's Day.

Another national shadow study of the eighth grade was conducted by Lounsbury and Clark in 1990. This study was a follow up on the 1964 shadow study noted above. The authors asked intriguing questions which still confront middle school educators today.

How has the spread of the middle school movement affected the eighth grade? Is the program actually being provided the student markedly different from the one provided in the 1960's? Does the curriculum adequately reflect our increased understanding of the nature of eighth graders? Does the school in which the eighth grade is administratively housed affect the kind of program provided? Do schools using interdisciplinary teams appear to be more effective? (Lounsbury and Clark, 1990, p. 2)

Other national shadow studies include a sixth grade shadow study conducted in 1988 by Lounsbury and Johnson, a

seventh grade shadow study conducted in 1980 by Lounsbury, Marani, and Compton, and a ninth grade shadow study completed in 1985 by Lounsbury and Johnson. (Clark & Clark, 1994)

The observers in the above national shadow studies received less training than the observers for this study. "A session of about 45 minutes the day before or the morning of the shadow study which acquaints the shadowers with observation techniques, (and) procedures for recording observations on the form ... has been found to be adequate." (Clark & Clark, 1994, p. 277)

The observers for this study were much more extensively trained. They received a two hour session on the tasks they were expected to perform, and were introduced to techniques to prevent their becoming part of the data by minimizing their interaction with the subjects they were shadowing.

This is one of the beauties of the shadow study technique. Extensive training is not necessary because the observer merely has to record their observations at regular time intervals. Persons from the community can and have been used successfully to perform the important task of recording shadow study data.

Even though these five shadow studies recorded data about students and teachers, they did not focus upon the factors which engaged students in learning. Instead, they

focused upon the impact on students of specific school programs, and the mode and content of classroom instruction. Therefore, their scope of data collection and analysis was much different than the data gathered and analyzed for this study. However, the data from these five shadow studies can be analyzed again using codes similar to those developed for this study. Such an analysis could determine if the same topics and conclusions would emerge as did in this study, and what differences and similarities exist between today's middle schools and those over thirty years ago.

III.

STUDY DESIGN

A large metropolitan school district in the Midwest was the data collection site for this study. All schools in the district containing grades six, seven, and eight participated in this study. The configuration of the participating schools included two elementary schools, grades K-seven, twelve elementary schools, grades K-eight, and eight middle schools, grades six-eight.

The students and teachers who comprise the subjects for this study were randomly chosen. The students were randomly selected from a list of sixth, seventh, and eighth grade students provided by the District. Teachers were also randomly selected from a list of tenured teachers provided by the District.

The observers were all volunteers from the community in which the schools were located. The volunteers were mostly female, and over one third have elementary school children. The observers were recruited through the efforts of the League of Women Voters, affiliated organizations, and the school district. Efforts were made to place observers in schools where their children did not attend.

Fifty-eight students were shadowed on Tuesday, March 10, 1998, and twenty-two teachers were shadowed on Wednesday, March 11, 1998, and Thursday, March 12, 1998. Fifty-eight volunteer observers shadowed the students, and twenty-two volunteer observers shadowed the teachers.

These observers recorded the student's behavior during the school day at regular intervals. At the end of the school day, each student was interviewed. No student was told he or she was the focus of this study until the end of the school day.

The teachers were also shadowed, but the teachers knew that the observer in their classroom was recording their behavior. The teachers did not know that they would be a subject of this study until the day the observations took place. At the end of the school day, the teachers were interviewed. The data were gathered, coded and analyzed. The researcher looked for patterns and correlations. Findings and conclusions are reported herein.

In this study, the observers, although present in various classrooms during the day, did not interact with their subjects. In fact, a concerted effort was made to keep the focus of their study confidential. The data show that the interaction between observers and subjects was minimal to non-existent.

A. OBSERVER TRAINING

Volunteers were trained on Monday, March 9, 1998, during a two-hour session. Training consisted of instruction about the shadowing process, and guidance was given for shadowing different persons in the school environment. Student shadowing was discussed, as well as teacher and principal shadowing. Each presented a different environment and different problems. The worksheets and guidelines were carefully explained, as well as the nature of the data the volunteers were being asked to collect. The outline of the Shadow Study Workshop and Correlation of Directions for observers is attached hereto and marked as Appendix A.

Observers were instructed to be unobtrusive and to place themselves in an inconspicuous place in the classroom where they would be able to observe their subject but not interfere with the normal operation of the class. Observers were instructed to make objective observations. They were

to record facts, not opinions. In addition to recording coherent legible notes, these notes were to be categorized by subject behavior, classroom environment, and comments of the observer. Subjective comments of the observers were recorded on the Fieldnote Forms under comments/impressions. See Appendix B for examples of Fieldnote Forms.

B. RECORDING DATA

Student shadowing meant the observer was to record, in five to seven minute increments, observations of what the student was doing. An effort was made to conceal which student in the classroom was being shadowed, so that the data collected would reflect the student interacting with his or her educational environment, not with observers gathering data. By the end of the day, it was probably apparent to some students that they were the focus of the study. However, the amount of distraction and interaction between observer and subject was minimized.

Teacher shadowing presented a different scenario. Due to the nature of having another adult in the classroom and in the educational environment, teachers knew that the data collection event was taking place in their school. As a consequence, the opportunity for the observer influencing the behavior of the observed was much greater in this context. However, again, it is presumed that such

interaction was minimal because of the professional nature of teachers, and because they had much more to do than interact with observers or tailor their behavior to preconceived expectations about what the observers were looking for and recording.

Directions and Fieldnote Forms were designed and distributed to the observers for each of the categories for which data were collected. The Fieldnote Forms for data collection for the students were fairly simple, with columns for the time, specific student behavior at five to seven minute intervals, the environment, and comments/impressions of the observer. The teacher shadow study Fieldnote Forms were of a similar design. This design invites both subjective and objective impressions. The category entitled "comments/impressions" gave the observers a chance to record their own subjective thoughts and feelings about what they were observing. The category where specific behaviors were recorded begged for "just the facts", and the observers generally responded accordingly.

Guidelines were developed for each of the categories on the worksheets. Observers were instructed to record the time in the appropriate column, the specific behavior observed, the environment where the behavior took place, including the subject being taught, and, finally, comments/impressions of what had just been observed. The

intent was to produce a balanced set of data regarding observations in the classrooms and in other environments. Because the data were separated into the specified categories, the observers had an opportunity to provide a complete picture of the subject in his or her environment, as well as their own impressions and biases.

IV. VALIDITY

Even though validity is mentioned in chapter 1 under limitations, and is limited to the schools in which the observations took place, some persons reading this study or others similar to it are tempted to generalize the findings and conclusions to a much larger population. But Maxwell (1992) suggests that there may be a more basic concept for qualitative research validity, that of understanding.

In adopting a realist approach to validity, I am in basic agreement with the main point of Wolcott's critique--that is, that understanding is a more fundamental concept for qualitative research than validity. ...I see the types of validity that I present here as derivative from the kinds of understanding gained from qualitative inquiry; my typology of validity categories is also a typology of the kinds of understanding at which qualitative research aims. (Maxwell, 1992, p. 281)

The validity of this study, as with any other, is really determined by the purpose for which the study was designed, and by the strategies employed to fulfill the purpose of the study. The shadow study technique which used

lay persons from the local community to make observations in the field is almost completely dependant upon these observers for competent data.

In other words, the purpose of the observation influences what is observed, how it is observed, who gets observed, how data are analyzed, and how data are used. In addition, the purpose of an observation is related to the theory, beliefs, assumptions, and/or past experiences of the person who is doing the observation. These factors form the frame of reference of the observer and influence the decision-making as well as the observational process. (Evertson & Green, 1986, p. 163)

This study may be viewed as a series of case studies, since it is valid for only the population studied. This may be only the individual student or teacher shadowed, or the school in which the shadowing took place. Denny (1978) suggests that ethnology (and the shadow study technique) describes a culture-sharing group, and may capture the general spirit of that group.

For Wolcott and for me ethnology refers to a theoretical statement about relationships and meanings within a group or among a number of societies. Ethnography refers to the basic descriptive work on which ethnology is based. Further, an ethnograph is a complete account of some culture-sharing group. Case studies are intensive and complete examinations of a facet, an issue, or perhaps the events of a geographic setting over time. (Denny, 1978, p. 2)

Based upon the understanding gleaned from this study, the orientation of the observers, and the scope of the design of the study, validity in this study extends to the schools, and perhaps even to the district, since all schools

in the district that offered education to sixth, seventh, and eighth graders were part of this study.

V.

CONCLUSION

Wolcott's (1990) comments are appropriate:

I opt for subjectivity as a strength of qualitative approaches rather than attempt to establish a detached objectivity that I am not sure I want or need. As I am doing here, I have always put myself squarely into the settings or situations being described to whatever extent seemed warranted for the purpose at hand. With some fear and trepidation, I introduced that strategy in my doctoral dissertation, and committee members raised no concern except for the question of excess. I decided that if I could get away with it there, I certainly could be as forthright in the future when writing to satisfy myself. (Wolcott, 1992, p. 131)

The observers who collected the data for this study were certainly a part of the school environment during their observations. However, due to their lack of interaction with the subjects of the study and the training they received, the data reflect no instances of influence by observers on observed behavior. This is an important point, and one which separates this study from the five previous national middle level shadow studies and from One Boy's Day.

The use of lay persons to conduct research and collect data using the shadow study technique is also important in that it incorporates members of the community into the data collection phase of the research process. Observers with a stake in the school and community help link the research to

their schools and community, and may influence the application of what the research shows to the initiation of programs in their schools. Analysis of the data will be addressed in the next chapter.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

I. INTRODUCTION

This chapter describes the several stages of data analysis and the findings. The data examined in this study were collected utilizing trained volunteer observers from the community. The data show engagement not from the eyes of the student or teacher, but from the eyes of impartial observers. In this regard, the shadow study methodology provides a third pair of eyes and a community perspective to record data from which the researcher was able to identify factors influencing the engagement of students in the classroom.

The procedure of data analysis is explained, as is the coding process. The codes emerged as the data were read and analyzed. These two processes are very closely linked, as the coding process defines what the researcher sees in the data, and determines how data will be analyzed.

II. ANALYSIS OF DATA

First the raw data were grouped by grade level and divided into packets of about ten students or ten teachers. The packets were read and initial impressions were recorded. Specific observations from the data were noted which

illustrated the initial impressions. The initial reading was performed before addressing any of the research questions or topics used to analyze the data. Then the data were read again, this time with specific topics and research objectives in mind. Codes were developed which represented the content of the data, and the packets were coded. The coding process is explained in detail in a subsequent section.

The objectives of this study are twofold:

1. What observable behaviors of students in a classroom setting indicate engagement in learning?
2. Are there any relationships between student engagement in learning and the utilization of middle level instructional techniques in the classroom?

The outline of topics for analyzing the shadow data from teachers was as follows:

1. What kinds of interactions did the teachers have during the day? To whom did they talk? Under what circumstances?
 - a. Teacher-student interactions.
 - b. Teacher-other adult interactions.
2. In what skill area did the teachers use direct instruction, and how much time was spent on this skill?
3. To what extent was the content studied during the day related to student interest, the current state of

- knowledge in the subject area, and the world outside of school?
- a. Evidence of instruction focused on curriculum standards.
 - b. Curriculum content, subject matter.
 - c. Opportunities for social skill learning.
4. What kinds of instructional models, strategies, and approaches seemed to predominate? Was student learning style considered in instructional arrangements and choice of methods?
- a. School instructional organizational arrangements, e.g., departmentalized, block scheduling, self-contained.
 - b. Evidence of interdisciplinary teaming/team teaching.
 - c. Instruction and teaching methods.
5. In what ways did teachers successfully engage students in learning?
6. What kinds of physical surroundings seem to predominate? How are classes arranged?
7. How was most of the teacher's classroom time spent?
- a. Teacher involvement in advising and counseling.
 - b. Teacher use of class time.
8. What was the classroom climate that seemed to predominate?

The outline of topics for analyzing the shadow data from students were as follows:

1. What kinds of social encounters did the students have during the day?
 - a. Student-teacher interaction.
 - b. Student-student interaction.
2. In what skill area did the students receive direct instruction, and how much time was spent on this skill?
3. To whom did students talk? Under what circumstances?
 - a. Inside the classroom.
 - b. Outside the classroom.
4. To what extent was the content studied during the day related to student interest, the current state of knowledge in the subject area, and the world outside of school?
5. What kinds of instructional models, strategies, and techniques seemed to predominate? Was student learning style considered in instructional arrangements and choice of methods?
 - a. Instruction focused on curriculum standards.
 - b. Interdisciplinary teaming/team teaching.
 - c. Instruction and teaching methods.
 - d. Teaching arrangements, e.g., departmentalized, block scheduling, self-contained.
 - e. Opportunities for social skill learning.

- f. Advising and counseling.
 - g. Teacher and student use of class time.
6. What kinds of physical surroundings seem to predominate? How are classes arranged?
 7. How was most of the students' classroom time spent?
 8. What was the classroom climate that seemed to predominate?

Not all of the above topics were addressed by the data. Consequently, not all of these topics are represented by specific coding categories. These topics helped to analyze the thousands of pages of observer field notes, but it was the data that dictated the emergence of coding categories.

The observers were assigned randomly chosen students and teachers in various schools in the District which included grades six, seven, or eight. The raw data from the observers were grouped together in packets. For example, grade six shadow data were grouped as 6A and 6B. Other grades were similar, 7A and 7B for seventh grades, and 8A and 8B for eighth grades. Teacher shadow data were also grouped, but since there were fewer teachers shadowed, only two groups were necessary, TA and TB.

There is nothing significant about these groupings of data, other than it was easier to read and analyze the data in smaller groups than it was for the entire mass of data. Each packet contained approximately ten students or

teachers. The tabulations of codes expressed in Table 2 and Table 3 show the frequency of codes by grade and group.

The process of coding the data was very important. It essentially defined how the data was viewed and determined what the researcher saw in the data. This process also determined what data was used and analyzed by the researcher.

The observers shadowed students and teachers during a particular day (a typical day) in their schools. These same observers also conducted exit interviews of their subjects at the end of the school day. Over thirty codes evolved from analyzing the teacher interviews alone, which described topics including school vision, decision making, program strengths, program needs, and communication. The exit interview questions and areas of inquiry were very specific, and often did not involve what had happened during their day at school, as recorded by the observers. Also, much of the interviews consisted of prescriptive and analytical comments by the teachers, and not observations of the observers. Since the objectives of this study were concerned with the actual shadowing data recorded by the observers, the exit interviews were not used as part of the data of this study.

III. THE PROCESS OF CODING

The process of developing codes which accurately

represent the data is a slow, time consuming process. The researcher had to read the data many times in order to become familiar enough with the data to be able to discern patterns in behavior, words and phrases, topics, and other regularities which generate coding categories. Research questions generate categories and help define useful data, as do theoretical approaches and academic disciplines. (Bogdan and Biklen, 1992)

Bogdan and Biklen (1992) describe a host of factors which generate coding categories, which include:

1. Setting or context codes include topics, settings, subject matter, statements people make, how the setting fits into the community, statistics, and quantitative data.
2. Situation codes include how the subjects define the setting and/or topics, their world view, their definition of what they do, what is important to them, and particular orientations, e.g. religious, political, social class, feminist, right-to-life, and their status as a participant, e.g. student, teacher, or administrator.
3. Process codes include words and phrases, categorizing sequences of events, changes in status, activity over time, stages, phases, steps, careers, chronology, school year, school week, and the school day.

4. Activity codes include regularly occurring behavior, lunch, showing films, attendance, class trips, and visits to the principal's office.
5. Event codes are often specific activities which occur only once, e.g. a strike, riot, or pageant.
6. Strategy codes describe ways people accomplish various goals, including tactics, methods, techniques, maneuvers, and ploys.
7. Relationship and social structure codes describe cliques, friendships, romances, coalitions, enemies, mentors, social roles, and positions.
8. Methods codes define research procedures, problems, dilemmas, and methods.

There are other factors which are important to the coding process, including the subject's understanding of each other, shared rules and norms, general points of view, types of students, the teachers' view of the nature of the students they teach, and teachers' definitions of each other. (Bogdan and Biklen, 1992) Table 1 contains all codes which emerged during the coding process.

Data analysis in this study proceeded by reading the packets and recording initial overall impressions. The impressions included quotes from observers' comments and observations in the classrooms. Then the data packets were read a second time, refining the initial observations, and

focusing on specific questions which included the objectives of this research, and the outlines for analyzing student and teacher shadow data. Again, several quotes were recorded and observations noted. Finally, the notes from reading the data packets were coded and analyzed.

What followed was an analysis of the observations gleaned from the thousands of pages generated by the observers. Table 1 specifies the codes used to analyze both teacher and student shadow data. The codes were tabulated, explained, and examples were chosen from the data that illustrated the various codes. Table 2 is the tabulation of the codes from the student shadow data. Table 3 is the tabulation of the codes from the teacher shadow data.

Tables 2 and 3 are mere tallys of the number of observations which were coded. These tables have no relationship to any statistical analysis and should not be used for that purpose. Their only purpose is to show how many times particular observations occurred, and at what grade level.

The researcher looked for words, phrases, behavior and any other data which addressed the research objectives. The data generated general conclusions about what was happening in the classrooms.

The development of codes for this study went through several stages of refinement. The first list of codes were

TABLE 1

CODES

I.	TEACHER BEHAVIOR
	A. INTERACTION WITH STUDENTS
TSA	1. individual or small group assistance, answer questions
TSC	2. conference
TSD	3. discipline
TSS	4. social
T/SR/L	5. teacher and student respect
	B. INTERACTION WITH OTHER TEACHERS
TTL	1. lunch
TTT	2. teaming
TTS	3. about students
TTP	4. planning or collaboration
TPC	C. INTERACTION WITH PRINCIPAL
	D. INSTRUCTIONAL TECHNIQUES
ITD	1. direct/traditional-math/language arts
ITC	2. computer
ITP	3. project based
ITS(N)	4. social skills (none)
ITDS	5. discussion
ITMS	6. teacher/student problem solving strategies
ITCW	7. in class work (worksheets)
ITSS	8. social skills cooperative groups
ITI	9. individual instruction
ITN	10. no integrated/interdisciplinary curriculum
ITL	11. no direct instruction
ITDD	12. students disengaged-direct instruction
ITDN	13. non traditional
ITB(N)	14. block scheduling (none)
ITT(N)	15. team teaching (none)
ITCN	16. no curriculum standards
TLT(N)	18. class control (none)
ITG	19. small groups
ITDP	20. departmentalization
ITSN	21. no social skills instruction
ITF	22. teacher as facilitator
ATH(N)	23. authentic instruction (none)
SSR	23. sustained silent reading

TABLE 1, continued

II.

STUDENT BEHAVIOR

A. ENGAGEMENT AND DISENGAGEMENT

SEM	1. students engaged-math
SIML	2. moderate student interest-language
SEC	3. students engaged-computer
SES	4. students engaged-science
SED	5. students engaged-drama
SEMU	6. students engaged-music
SEDS	7. students engaged-discussion
SECH	8. students asking for directions or help
SELT	9. students engaged-long term project
SEH	10. students engaged-hands on
SEG	11. students engaged-group project
SET	12. students engaged-teacher rapport
SEI	13. student engaged individual
SE	14. students engaged
SD	15. students disengaged
ITDD	16. students disengaged-direct instruction

B. STUDENT SOCIALIZING

SSL	1. socializing at lunch
SSC	2. socializing in class
SSH	3. socializing in the hall

III.

PHYSICAL ENVIRONMENT

PEP	1. posters, maps, student work displayed
PEA	2. airy and bright, pleasant and clean
PER	3. rows of desks or tables
PERU	4. rules posted
PERO	5. U/horseshoe configuration of desks or tables
PET	6. teachers desk at front of classroom
PEC	7. tables and chairs
PEJ	8. junky or messy, peeling paint

TABLE 2
TABULATIONS OF CODES OF STUDENT SHADOW DATA

CODE/GRADE	6A	6B	7A	7B	8A	8B	TOTAL
TSA	6	4	7	5	8	6	36
TSC	2	1	0	0	2	1	6
TSD	3	5	4	6	3	5	26
TSS	0	3	0	4	0	3	10
T/SR/L	0	2	2	2	1	4	11
TTP	0	0	0	1	0	0	1
ITD	6	14	8	8	11	5	52
ITC	1	1	0	1	1	1	5
ITP	2	3	3	7	0	7	22
ITDS	1	1	1	0	2	3	8
ITMS	0	1	1	2	0	3	7
ITCW	5	3	4	2	3	2	19
ITSS	1	0	0	3	1	1	6
ITI	5	3	4	3	3	2	20
ITN	1	7	1	1	1	1	12
ITL	0	0	0	1	0	1	2
ITDD	0	1	0	1	1	0	3
ITDN	0	3	0	2	0	0	5
ITBN	0	2	2	2	2	5	13
ITB	1	0	0	0	0	0	1
ITT	1	1	1	1	1	2	7

TABLE 2, continued

CODE/GRADE	6A	6B	7A	7B	8A	8B	TOTAL
ITTN	0	0	0	0	1	1	2
ITCN	2	2	1	0	2	1	8
TLT	0	1	0	0	0	0	1
ITG	2	1	6	3	3	3	18
ITDP	1	1	1	1	1	1	6
ITSN	0	0	0	1	0	1	2
ITF	2	1	0	2	2	1	8
ATH	0	2	1	4	2	1	10
ATHN	3	0	1	0	0	0	4
SSR	0	3	1	1	0	0	5
SEM	0	1	1	1	0	1	4
SIML	0	1	0	1	0	1	3
SEC	1	1	0	3	1	3	9
SES	0	1	0	1	1	1	4
SEMU	0	0	0	1	0	1	2
SEDS	0	0	2	0	2	0	4
SECH	3	0	2	1	2	1	9
SEH	0	1	0	2	0	1	4
SEG	3	2	2	3	5	3	18
SET	0	1	2	1	1	2	7
SE	4	1	4	4	5	3	21
SEI	2	1	1	0	2	0	6
SD	4	5	2	2	3	2	18

TABLE 2, continued

CODE/GRADE	6A	6B	7A	7B	8A	8B	TOTAL
SSL	3	3	4	5	5	3	23
SSC	6	9	5	8	6	4	38
SSH	3	3	1	2	2	1	12
PEP	2	1	1	2	2	1	9
PEA	3	2	2	1	2	2	12
PER	2	2	2	2	2	1	11
PERU	0	1	1	0	1	0	3
PERO	1	0	1	0	0	0	2
PET	2	1	2	1	1	1	8
PEC	2	2	1	3	2	3	13
PEJ	1	4	0	0	1	3	9

TABLE 3
TABULATIONS OF CODES OF TEACHER SHADOW DATA

	TA	TB	TOTAL
TSA	3	6	9
TSC	1	0	1
TSD	2	5	7
T/SR/L	2	0	2
TTT	3	1	4
TTS	1	1	2
TTP	1	1	2
TPN	0	1	1
TPC	0	2	2
ITD	5	12	17
ITC	3	1	4
ITP	2	1	3
ITS	1	0	1
ITDS	1	1	2
ITMS	1	0	1
ITCW	1	4	5
ITSS	1	1	2
ITI	1	4	5
ITDD	1	0	1
ITDN	2	0	2
ITBN	2	2	4

TABLE 3, continued

	TA	TB	TOTAL
ITTN	2	1	3
ITCN	2	2	4
ITG	2	2	4
ITDP	1	1	2
ITF	1	1	2
ATHN	1	1	2
SSR	0	1	1
SEM	2	0	2
SIML	2	0	2
SEC	2	6	8
SES	1	0	1
SED	2	0	2
SEMU	1	0	1
SEDS	1	1	2
SECH	1	0	1
SELT	2	1	3
SEH	1	0	1
SEG	1	2	3
SE	1	4	5
SEI	1	0	1
SD	1	2	3
SSL	0	1	1
SSC	0	1	1

TABLE 3, continued

	TA	TB	TOTAL
PEP	1	2	3
PEA	1	2	3
PER	1	5	6
PERU	2	2	4
PERO	0	2	2
PET	0	1	1
PEC	0	3	3

descriptive of the classroom environment and interactions between teachers and students. An example is the code SIC, meaning "students in class", which indicated the number of students in a particular class. Initially, this was thought by the researcher to be important because larger classes may tend to have fewer students engaged in the learning process than smaller classes. This category was eliminated because it was not an observation recorded in many classrooms. Also, some observers pointed out that the schools in which the shadowing took place all had fairly small classes, around twenty-five students.

The second category chosen by the researcher was DIS, meaning "disruptive students". However, this too was eliminated when it was discovered that it was merely part of a larger category, that of teacher-student interactions. DIS became TSD, teacher-student discipline.

There was a continuous process of refinement and simplification during the process of developing codes. For example, the teacher/student interaction codes were initially TSIA, TSIC, TSID, and so on. But since there was no TSI code, the "I" was eliminated, resulting in the codes which are explained above. Other teacher/student categories which evolved are TSA, individual/small group assistance/answer questions; TSC, teacher-student conference; TSS, teacher-student socializing; and TR/SR,

teacher and student respect for one another.

The codes for interaction between teachers followed a similar course of development as did the teacher-student interaction codes. Teacher-teacher interactions were initially coded TTI. However, this, too, was discovered to be a general category, evolving into several distinct categories, including TTL, teacher-teacher interaction at lunch; TTT, team teaching; TTS, teachers consulting about particular students; and TTP, planning and collaboration between teachers.

The codes were refined, combined, simplified, and redefined many times before they were finally determined to accurately represent the data. An important part of this process was reading and rereading the data and assigning codes to words, phrases, and events as recorded by the observers. Upon rereading the data, and comparing codes and the behaviors and events recorded and described by the observers, the greatest refinement took place.

It was discovered that there were three main categories of behavior and events recorded by the observers: Teacher behavior, student behavior, and physical environment. From these three main categories, sixty-five separate codes emerged. These sixty-five codes accurately described the behavior and events of teachers and students recorded by the observers in the middle school classrooms.

IV. TEACHER BEHAVIOR

A. INITIAL IMPRESSIONS

Initial impressions include the observation that the teachers were overworked, their day was very full, and the issues which they had to deal with were quite varied. In addition to teaching, many teachers took their classes en masse to lunch, a behavior usually reserved for elementary schools. In fact, one observer (TA) noted that the teacher she was observing "did not eat lunch all day", and the observer "did not see her leave to go to the bathroom". Teacher preparation time was also limited. If preparation time was in their schedule, the teachers spent the time making phone calls, consulting with colleagues, or monitoring the hallways.

Even though most classes contained about twenty-five students per class, teachers still had to deal with behavior problems. Many of the classrooms had rules of student conduct posted, apparently to inform the students of the consequences of their transgressions.

The teaching environment ranged from chaos to quiet seat work. Some teachers were clearly on a block schedule, teaching several classes each day on the same subject. Others taught in self contained classrooms, covering all subjects for the same group of students.

The style of teaching was mostly traditional and

direct, with worksheets widely employed. There were instances of project based instruction and individualized instruction, but these were in the minority. Team teaching was not a favorite, nor was an integrated or interdisciplinary curriculum. There were some notable instances of authentic instruction. Small group instruction was noted in many classes, as were a few spirited discussions involving the whole class.

Most classes tended to keep all the students on the same topic or project. A typical class involved a short lecture or explanation using an overhead projector, and a class or small group discussion of the topic, or an individual written assignment. The teacher then circulated around the room answering questions, and acting as a facilitator.

The codes discussed in the following sections appeared more than once in the data, and represent observations which were recorded in more than one classroom by multiple observers.

B. TEACHER-STUDENT INTERACTION

TSA represents a form of teacher-student interaction, where teachers address students individually or in small groups concerning assistance on assignments or answering questions. This code includes helping students with individual problems, clarifying the tasks on worksheets,

consulting with small groups on projects, giving feedback on student progress, and rendering assistance on in-class assignments.

TSD represents interactions between teachers and students about disciplinary matters. Although student discipline was not a major part of the day of teachers and students, it was universally noted by the observers. More data about student discipline and the percentages of time spent out of each school day will be discussed in the Student Behavior section of this study.

TSD included dealing with disruptive students, conferences with students receiving disciplinary actions, removing a student from the classroom for disciplinary reasons, controlling and monitoring the behavior of students, threatening students with consequences of their unproductive behavior, and keeping the noise and chaos under control when small groups were meeting. One observer noted that when students were disciplined and removed from the classroom (TA), "the other students in the class showed little reaction". The observer inferred that the student's lack of reaction was because "the students thought the teacher's actions were fair".

C. TEACHER-TEACHER INTERACTION

TTT is the code for team teaching. This instructional strategy was not very prevalent in the shadowed classrooms.

There was one instance of team teaching, where movable walls were folded back to allow two classrooms to share a guest speaker. There were no instances of team planning, or any other preparation for team teaching. The school had the physical flexibility to allow teaming, but the teachers and administrators did not embrace this popular strategy.

TTP is the code for teacher-teacher planning or collaboration. There were only two instances of any teacher collaboration noted by the observers. These observations are supported by the lack of teaming, and the prevalence of self contained and traditional classrooms. One observer commented (TA), "The life of a teacher in this school is lonely."

TTL refers to interaction between teachers during lunch. The observers recorded little interaction of any kind between teachers, but the most common example occurred at lunch. Such encounters were mainly social in nature. If the talk turned to students or school matters, the encounter was coded to reflect the topic of the conversation. For example, TTS refers to teachers consulting about a particular student or group of students. There were only two instances of teachers consulting about students.

D. INSTRUCTIONAL TECHNIQUES

ITD is the code for direct or traditional instruction. Examples of teacher behavior in this category included

lecture, whole class presentations, the use of overhead projectors (mostly in math classes), English-Spanish translations in Spanish class, and identifying parts of speech in language arts class. These were instructional techniques described as traditional by the observers, and included teacher demonstrations. Direct instruction was the most observed instructional technique employed in the classrooms.

The computer in the classroom emerged as one of the most effective tools for engaging student interest and participation in learning activities. Some schools had computers in their classrooms, while others had rooms dedicated to computers, i.e., a computer lab. ITC is the code describing instructional techniques which are based upon using a computer.

One of the more interesting aspects of the impact of the computer upon the classroom and student engagement in learning is that the computer itself seemed to engage the student, regardless of the subject matter. Ross (1985) posits that computer-assisted instruction may help individualize instruction by adapting to individual needs.

Compared to conventional teaching methods such as lecture and discussion, computer-assisted instruction (CAI) offers the important advantage of being able to adapt materials to the needs of each student. Further, such adaptations can be made and refined "on line" as the learner needs change over the course of a lesson. (Ross, et al., 1985, p. 199)

Observers noted on task behavior of most students who were working on assignments using a computer. This will be more fully explored in the section on student behavior.

Some instruction was project based, coded ITP. Project based instruction involved both individuals and small groups, and should be differentiated from purely individualized instruction (coded ITI) and small group instruction (coded ITG). Many of the observers recorded entries such as "project-based instruction", "project-based learning" or simply "project work". All such observations were coded ITP. There were few details recorded as to what the students or teachers were actually doing, so there are no examples to present which are illustrative of what was observed.

Discussion in classrooms was coded ITDS. Although noted by observers as "classroom discussion" or simply "discussion", there were few details given as to the subject matter of the discussion and whether or not the entire class was actively participating. One exception (TA) was a classroom discussion in language arts class as to the meaning of the word "prejudice", which involved the entire class.

ITCW was an oft noted coded activity in the classroom which included pencil and paper work at the student's seat, worksheets handed out by the teacher, and exercises from a

textbook. Such activities sometimes took up half or more of a classroom period. At least one teacher relied upon student seatwork to allow him to complete paperwork at his desk. This type of classroom activity was viewed by the researcher as passive learning. Even though the students were for the most part engaged in this work when it was assigned, that engagement was not actively engaging the children's interests. Their engagement was the result of their ability to follow the rules and do as directed. An example of this type of classroom activity involved handing out worksheets on proper and improper fractions in math class (TB) after the teacher presented a short demonstration of fractions by shading parts of a circle.

ITSS refers to the opportunity for social skill development in the middle school. Socializing is a major part of the day of most middle school students. One observer noted (TB), "These students will find a way to socialize regardless of any opportunity presented in the curriculum." The opportunities for social skill learning appeared ample in the classrooms which involved cooperative group work. Another observer noted (TA) that one teacher "must have spent some time teaching social skills" because when a student turned around and spoke to her neighbor, the class "recited why the behavior was a problem, that it's disrespectful to turn your back to the speaker."

ITI represents individualized instruction. This category includes the teacher giving individual attention to students about assigned tasks, and giving one-to-one feedback about lessons and classroom activities. One observer noted (TB), "She spent quite a lot of time assisting one student who needed help."

Block scheduling is an instructional strategy (coded ITB) which reserves blocks of time for instruction. Such blocks of time may be every day or certain days of the week, depending upon the curriculum. Block scheduling represents a departure from traditional modes of instruction. There were instances of block scheduling observed at many of the schools but the dominant theme for curricular organization was departmentalization. The code for departmentalization is ITDP. Departmentalization was evident in many teachers schedules.

ITG is the code for organizing small groups of students as an instructional technique. This code was recorded when the observer noted the use of small groups, whether or not the students were engaged or disengaged. Small groups are an invitation to socialize, particularly for these adolescent students, and such an invitation was not ignored. This was a popular instructional strategy, however, with one teacher using it over ninety percent of the time. In classrooms where this technique was common, the teacher

acted as a facilitator, walking around the room giving directions, answering questions, and giving feedback on students work.

Authentic instruction (coded ATH), noteworthy because it brings into the classroom elements of real life the community and society, was observed in a few classrooms. In math (6B) the students used tipping and shopping to learn about percentages.

E. PHYSICAL ENVIRONMENT

The physical environment can influence student engagement in learning, and the attitude of teachers who must teach in that environment. A dark poorly lit classroom is not conducive to learning for students, and is not a pleasant work environment for the teacher. A pleasant environment is encouraging for both students and teachers to become engaged in the learning and teaching processes.

Most of the classrooms had posters, maps, and examples of student work (coded PEP) on the walls or on bulletin boards. Many of the posters were content-related or inspirational. Other observations include a bright and airy environment, pleasant and clean (coded PEA). Still another (coded PERU) was the observation that many rooms had rules posted on the walls or on bulletin boards. Finally, a common observation of the physical environment was that the desks or tables were arranged in rows (coded PER), with the

teacher's desk at the front (coded PET), a very traditional arrangement. An example of an observer's comment (TB) is "Bright and roomy-big new windows-with many kid-produced posters and projects on bulletin and black boards, and above them."

F. STUDENT ENGAGEMENT

Student engagement is analogous to on task behavior, and represents the students' commitment to involvement in the learning process. Arends (1994) defines engaged time as "The amount of time students actually spend on a particular subject or learning activity." (Arends, 1994, p. 528)

Even though this topic will be discussed in greater detail in the Student Behavior section, observers noted student engagement often enough while shadowing the teachers, that such observations are included here. These observations also represent different classrooms than where the students were shadowed, which gives us a broader picture of student engagement in these schools.

Students were engaged in activities involving computers (coded SEC). Access to computers seemed to increase the interest level of the students. Students also were engaged in whole class discussions (coded SED), in long term projects (coded SELT) and in small groups (coded SEG).

Some students were disengaged when direct instructional techniques were employed in the classroom. ITDD is the code

for students disengaged in a direct or traditional instructional environment. Observers reported a higher level of student disengagement when they were describing classes that relied more heavily upon direct instruction. Such techniques include lecturing and using the overhead projector.

In terms of student engagement (coded SE) there were two discernable types observed, active and passive. Active engagement was noted when the students were involved in class discussions or small groups, and on task. Passive engagement included listening to a lecture, silent reading, pencil and paper seat activities, and testing. Essentially, active engagement involves some observable behavior associated with an active learning situation, whereas in passive engagement the student is apparently engaged, but there is no way of knowing where the student's mind is. Both types of engagement also involve the lack of off task behaviors.

V. STUDENT BEHAVIOR

A. INITIAL IMPRESSIONS

Initial impressions include the prevalence of pencil and paper activities for the children, which was mostly seat work. The classrooms were very traditional in nature, and were reminiscent of 1950's classrooms. Children mainly sat

in rows of desks or tables with the teacher at the front of the room. There was quite a difference in start times for various schools, as much as two hours. Classrooms were generally airy and bright with posters, maps, and student-produced work on the walls and bulletin boards. Several classrooms had rules of conduct posted in the classroom, and at least one observer noted the student's awareness of these limits on behavior.

Most students were engaged in learning when using a computer, regardless of the topic or subject. There was evidence of authentic real-life applications of learning, noted in the following discussion on authentic instruction (coded ATH). It was often impossible to tell from the observer's notes what the subject matter in the class was. Socialization between and among middle school students is alive and well, in the classroom and outside the classroom. Socialization seemed to be the major reason for attending school, from the student's perspective.

There were twelve codes dealing with student engagement in learning, which were analyzed in a separate section entitled Student Engagement.

B. TEACHER-STUDENT INTERACTION

The teacher-student interaction code TSA was recorded when the observers noted the teacher giving individual or small group assistance with assignments or answering

questions. Although this code was included in the Teacher Behavior section, it is an integral part of Student Behavior as well, perhaps because teacher-student interaction is a sanctioned activity in the classroom. An example of this coded activity as reported by an observer (8A) was "Teacher walks over to the three students working together and all engage in teacher's discussion."

Another popular code for teacher-student interaction involved discipline, coded TSD. Even though discipline was not a major problem in many of the classrooms observed, it was common to most of them. The great majority of disciplinary interactions occurred in the classroom. But there was one event which involved corporal punishment that occurred during the lunch break (8B): "During lunch students hung out together or played basketball. One student was kicked and the perpetrator had his hand slapped by a teacher."

Although most teachers spent about five percent of class time on discipline, one teacher was an exception. The observer wrote (8A), "The teacher has spent 30% of class time reprimanding and threatening a few students that obviously don't take this subject seriously."

Teacher-student conferences (coded TSC) and teacher-student social interactions (coded TSS) were observed, but with much less frequency than other teacher-student

interactions. In one TSC observation (6A) a student consulted with the teacher regarding strategies for doing an assignment. In a TSS observation (6B) involving a female student and two teachers, they spoke about the student's new haircut, which the teachers said they liked.

There were numerous observer notes concerning the mutual respect shown between students and teachers (coded TR/SR) in the classroom. Such observations were recorded at all three grade levels. Examples include (7A) "There was warmth between students and teachers", and "Teacher seems to have good rapport with students-is respectful-gives students space, but they seem to know how far they can go." Other observers (8B) commented that teachers have "good rapport" and are "well liked" or "very popular" with their students. All such positive interactions between students and teachers contributed to a positive classroom environment.

C. STUDENT-STUDENT INTERACTIONS

Socializing is one of the main activities of students at the schools where the data were collected. Student socializing in class (coded SSC) was very common. It was the source of many teacher-student disciplinary confrontations, but these were not a major part of the use of time in the classroom. Most student socializing in class was considered off task behavior, although some classrooms seemed to have reached a happy medium of how much

socializing the teacher would tolerate and how much socializing the students required. Most teachers allowed socialization to continue as long as academic work also continued. Student socialization during class was not limited to talking. Other student activities coded SSC include play-fighting, joking, poking with pencils, throwing clay, and helping others with assignments. Some students even roamed around the room talking with friends, or relocated to be closer to their friends. One observer noted (6A) a student "Talks to two boys as they work on an assignment. Animated. Yells at girl five feet away, 'How are you?', asks her another question. She sits down, they share information." Other examples of student socializing in class include sharing a bag of cheese curls (7A), and interviewing the observer (7A).

SSL is the code for student socializing at lunch. Lunch was the best time for social interactions between students, as it was largely unsupervised and unstructured time. Student socializing was composed of talking, playing sports, and eating lunch.

SSH is the code for student socializing in the hall as the students moved between classes. Although observed at every grade level and in every school, there is a lack of specificity about topics of discussion between students in the halls. Observers merely noted that the students were

having social encounters with one another. Most such encounters were of fairly short duration, less than a minute.

D. INSTRUCTIONAL TECHNIQUES

ITD is the code for traditional or direct instruction. Observations coded as traditional or direct include lecturing, using the overhead projector as part of a whole class presentation (usually in math classes), copying from the chalkboard, drills, "active listening skills" (6A), the teacher reading an article and the students taking notes, the teacher passing out an article and students reading it aloud, and other whole class teacher-centered activities. One observer wrote (6A), "Teacher is at the front of the room. She is using an overhead projector. Kids are taking notes."

A coded instructional technique, ITP, appeared often in the student shadow data. ITP stands for project based instruction. Many classrooms used projects in order to engage students in the learning process. Many of the projects were performed by small groups of students, an appealing arrangement to adolescents. Project based instruction was fairly common in science classes. Students conducted experiments and recorded data, and in music classes, they played music as a group. One observer wrote (7A), "Teacher worked one-on-one with students and their

projects." This quote could also support the code for individualized instruction.

The code for individualized instruction, ITI, also was fairly common in the coded data. This code was assigned to the data when a student received individual attention from the teacher for a project, assignment, lesson, or other academic task. ITI was also assigned to the data when students worked on individual projects or assignments. Finally, ITI was assigned to the data when the teacher moved about the class working with individuals and small groups of students. An observer wrote (6A), "The teacher moved from student to student, helping them with work."

Another instructional technique appearing often in the coded student shadow data, ITCW, is composed of pencil and paper activities, worksheets, and assignments from textbooks. This was all seat work for the students, sometimes recorded as "busywork". Although there is little data to support its pedagogical purpose in the classroom, it appears that its function was to keep the students busy doing something related to academics. The students were mostly on task, even for this busywork. An observer wrote (7A), "This teacher has the students doing what she calls 'book work'-has more work sheets if they finish their work." A reasonable inference from this observation is that the purpose of the "book work" is to keep the students busy, not

learn about some specific topic or subject, although that may be happening as well.

Small group instruction (coded ITG) was a popular instructional technique, as evidenced by data recorded by observers at every grade level, six, seven, and eight. Small groups were popular with students because it gave them a chance to socialize in a sanctioned manner, but it also was beneficial academically because it gave them a chance to confer on assignments and exchange ideas with each other and with their teacher. One observer noted (7A), "Teacher walking around room, observing. Discusses art with three students at a table."

Code ITN refers to the lack of an interdisciplinary or integrated curriculum. This observation and finding bolsters the earlier observation that teaching in these schools is a lonely job. Without an integrated approach, teachers do not confer with each other about coordinating the curriculum for the benefit of the students. Both the students and the teachers lose in an educational environment which fails to build on learning experiences in other classrooms. This observation was coded at every grade level in each school.

Block scheduling was not noted at every grade level. An absence of block scheduling was coded ITBN. One of the aspects of middle school, at least by grade eight, is the

introduction of blocks of time often devoted to certain subjects. This is to help prepare the middle school student with the block scheduling he or she will encounter in the high school. (Clark & Clark, 1994)

Authentic instruction (coded ATH) is one of the more motivating and engaging categories of instructional techniques for adolescents. Authentic instruction is important for student engagement in learning because it brings the outside world of community and culture into the classroom, making instruction relevant to life outside the school.

The use of authentic instruction was observed at all grade levels in the middle schools. One observer (7A) made the following comment about a teacher, "She brings the real world to what she is teaching by giving examples that kids would understand." Other examples of authentic instruction included (8A) the expense of a college education, real life math problems, and segregation in our society.

The students also presented reports that were authentic and interesting to them. One example (6A) was a student presentation about rock climbing. In another example (6B) students read comic books to discover the American way of life, and were going to share this information with students from another country. Finally, there was an example of authentic instruction (7B) where the students had to

participate in a job interview, find a place to live, keep a checkbook, and pay bills.

The computer was observed to be a major factor in the engagement of students in middle school classrooms. ITC was coded when the teaching strategy included a computer. If the observer noted student engagement while using a computer, that data was coded SEC, student engagement involving a computer, which will be analyzed under the heading of Student Engagement. However, if computer use in the classroom was recorded in the data without any observation of it's effect upon the students, then that data was coded ITC. Examples of ITC in the data include the observation (8B) of computer assisted instruction and the teacher telling students to save their work on the computer (6A). Interestingly, there was no observation of direct instruction of basic computer skills such as learning the keyboard. Apparently the students observed had already mastered such basics.

Discussion as an instructional technique was coded ITDS. As with some other observed behaviors and instructional techniques, students engaged in a classroom discussion was coded SEC. However, when discussion was merely noted by the observers, it was coded ITDS. One observer recorded (6B), "Teacher launches right into a discussion of percentage relating to common products found

in a grocery store."

ITMS was coded when the observer noted the teacher or students engaged in problem solving strategies. Teacher and student modeling of problem solving strategies, as well as whole class problem solving strategies were fairly common in mathematics classes (7B and 8B). Individuals also engaged in problem solving strategies (6A), with the teacher's help.

ITSS was coded when social skills were observed as part of the curriculum. About the only instances where this occurred involved cooperative groups working on assignments or projects. There were many instances of socializing going on in and out of the classroom, but few instances of it appearing as part of the curriculum. One observer noted earlier that the students recited a class rule against turning one's back to the speaker when one of their number turned and spoke to a neighbor, which is certainly a social skill. However, since social skill development was not a separate part of the curriculum, most observations coded ITSS concerned teachers reinforcing appropriate social behavior of their students during class (7B), or observations of students working in groups and practicing or developing social skills (8A).

Most of the classrooms and teachers were very traditional in their instructional techniques and in the way the classrooms were arranged, e.g., desks and tables in rows

with the teacher at the front of the room. However, there were some instances of non traditional instruction, coded ITDN. In music and science classes the teachers tried to structure non traditional activities in order to engage their students. In science class, the teachers organized laboratory experiments (6B) which seemed to engage the students in the subject matter, and in music class, in this instance band, the instructor let students practice their instruments individually (6B).

Team teaching was not a widely used instructional technique. However, it was recorded by observers in a few instances, and coded ITT. One such instance was when a movable wall between two classrooms was opened so both classes could share a guest speaker. Most schools had a home base period as the first class of the day. No observations of teaching or advising were recorded, but one observer mentioned that the teachers teamed for the initial period. However, most observers did not record anything that could be considered team teaching, and the earlier observation of the loneliness of teaching in this school system seems applicable here.

Departmentalization (coded ITDP) was observed at each grade level. There was a variety of systems, including block scheduling and self contained classrooms. Departmentalization was more prevalent at grade eight where

few teachers taught more than one subject (8B). Classes which were generally departmentalized included physical education, art, and music (7A).

The teacher often moved about the classroom acting as a facilitator (coded ITF). As a facilitator, the teacher assisted individual and small groups of students in performing academic tasks rather than addressing the class as a whole. This was in contrast to the overwhelming number of observations of traditional teaching methods. However, the teacher often circulated around the room answering individual questions or giving guidance to small groups on assignments and projects. One observer wrote (8A), "Teachers are circulating working with students, some students are in hall working."

Silent reading (coded SSR) was noted by many observers. One class read silently for most of the forty-five minute period, but that was unusual. Silent reading was observed more in social studies and language arts classes than in any other part of the curriculum. Silent reading, like worksheets, may have been a favorite of teachers to keep the students occupied and quiet.

E. PHYSICAL ENVIRONMENT

Eight codes emerged from the data which describe the physical environment of the schools. These codes describe the appearance of the classrooms, the arrangement of

furniture, the posting of rules of conduct in classrooms, and the general ambiance of the classrooms.

The code PEP refers to the decoration of the classroom with posters, maps, and student work. This code was applied to the data when the observers reported posters on the walls and bulletin boards, student work in the form of drawings and project work, and photos of students working on class assignments. One observer wrote (7A), "Art room, colorful posters, clean, orderly." However, another observer recorded (8A), "A few posters are taped on wall. Boxes lying about. Blackboard full of yesterday's work." Both observations were coded PEP.

Classrooms which were described as bright and airy or pleasant and clean were coded PEA. The observation noted above (7A) which recorded "clean, orderly" was coded PEA as well as PEP. As illustrated in the paragraph above, quite a range existed in classroom environments according to the observers descriptions. However, the majority of observations were positive in nature, giving the impression of colorful and bright classrooms. Still, a range existed from classrooms which were brightly colored with students projects or posters related to the curricular content to very plain rooms that were small and crowded to the point that the teacher could not easily get from table to table.

(8A)

There were a few instances of observations of dirty carpet, peeling paint, and messy classrooms. Such observations were coded PEJ. Such classrooms were located in the basement, and were visited by more than one observer. One offending basement classroom was described (6B) as having "barren walls with paint peeling", and (8B) "dingy, dark rooms in the basement". A basement room used for mathematics classes was described as (6B) "messy and disorganized", the floor littered with paper scraps, and "junk piled in the corner." Another observer noted evidence of water damage to the walls, contributing to the peeling paint.

The furniture arrangement was mostly quite traditional, with rows of tables or desks. Such observations were coded PER. Desks were more common in sixth grade classes, and tables more common in eighth grade classes. The predominance of traditional rows of student desks and tables complement the observations about the traditional nature of the instructional techniques employed by the teachers.

When classroom furniture was arranged in a circle, horseshoe shape, or in a configuration other than rows, such observations were coded PERO. One observer wrote (7A), "Tables set up in a U shape except for a few individual tables off to the side." Music classes (7A) had chairs arranged in a circle. Another observer noted (6A), "Tables

set up in semi circles. All kids can see up front and each other."

When the observers noted tables and chairs as the classroom furniture, without mentioning the configuration, such observations were coded PEC. This category was limited to tables and chairs because when desks were mentioned, they were always in rows. One school (7B) had only tables and chairs with no desks. In classrooms where group work was common, the furnishings were tables and chairs.

Some classrooms had rules of student conduct posted on the walls. Some classrooms (7A) called these rules "classroom expectations". Such observations were coded PERU. These lists were not merely the rules of conduct, but the consequences of violating them as well. Consequences (8A) included loss of points towards grades, and detention.

F. STUDENT ENGAGEMENT

There are fourteen codes for student engagement and two for disengagement. However, only twelve student engagement codes appear in the student shadow data. The other two codes, students engaged in drama (coded SED) and students engaged in long term projects (coded SELT), appeared only in the teacher shadow data.

It is difficult to tell with certainty whether or not a student is engaged in learning. It is much easier to tell when students are not engaged, particularly when they

exhibit off task behaviors such as talking to friends, sleeping, reading a comic book, or day dreaming, but even this latter category can be deceptive. The problem is akin to that of cognition, determining what is going on in the mind of the observed. A student may even appear to take notes, thus engaged in learning, only to discover by looking at the writing that it is a list of friends coming to a party Saturday night, and the student was off task the entire time.

On the other hand, the same is true for apparently off task behaviors. The student daydreaming may be carefully analyzing information and synthesizing an approach to solving a problem as part of an assignment. An analysis of the data and engagement codes may shed some light on this dilemma.

While the purpose and method of qualitative research techniques generally preclude quantitative analysis or discussion, the data collected for this study included time intervals, giving data on the factor of time. A careful analysis of the field notes indicated that students spent twenty to thirty percent of their time actively engaged in learning activities, thirty-five to fifty percent of their time passively engaged in learning activities, and twenty-five to thirty-three percent of their time disengaged from learning activities. This means that most students were

actively engaged in learning less than one third of the time in the classroom.

Some students are engaged by a particular instructional technique, others alienated by it. The predominant form of instruction in these schools was traditional in nature, and some students were turned off by this method of instruction. Coded ITDD, some students were disengaged by traditional or direct instruction. This observation was recorded when the teacher was lecturing, reading, or correcting homework, and the students were in a passive role as learners. This often led to off task behaviors and student attention getting behaviors (6B) sometimes resulting in class disruptions. When there were fewer opportunities for teacher-student interaction on a one-to-one basis, observers reported a higher level of student disengagement. There was one instance (8A) when students turned on a radio and performed rap.

There were a few instances when students were engaged in a particular academic discipline. One such example is student engagement in mathematics (coded SEM). In one seventh grade class (7B) the class as a whole appeared engaged in the lesson presented by the teacher. Evidence included correctly answering questions posed by the teacher and correctly solving problems. The observer noted no off task behaviors.

Students were also recorded as exhibiting interest in language arts. Coded SIML, such behavior was actually recorded as moderate student interest by the observer. Although there were only three such instances noted in the data, this category illustrates the difficulty of observing student engagement in learning. In this instance, the observers noted "interest" rather than "engagement". All observations coded as a form of engagement were not always recorded by the observer as engagement. Sometimes the key word was "work" or "working", in relation to student activity.

SEC is the code for students engaged in learning activities at a computer. The observers noted few off task behaviors while students were at a computer. Students were looking intently at the screen, and were engaged in the task presented on the computer. In some instances, small groups or pairs of students were engaged in these activities. Access to computers apparently increased the interest level of the students, and resulted in their engagement in learning activities. One reason may be the applicability of computer skills outside the classroom. Computer skills are cutting edge technology and a valued skill in the workforce. In at least one science class (7B), laboratory experiments were conducted using a computer. There was one instance of a student using the internet (8B) to access information for

a class assignment.

SES is the code for student engagement in science class. As noted in the above paragraph, students were engaged using a computer in science class to perform experiments. This observation was also coded SES. In another science class (8A), the engaging topic was "bugs have sex", and the observer commented that this was a good way of speaking to students in their everyday language. Other instances of student engagement in science was when students were working on science fair projects, which are generally of individual interest to the students.

Students in music classes were often engaged in their tasks, coded SEMU. Music is sometimes an elective class, and a student must have some individual motivation to sign up in the first place, like a desire to play in the band, or become more proficient on an instrument.

Students were often engaged by in class discussions, coded SEDS. One such example (8A) in social studies class was a discussion of current events, specifically a shooting in their neighborhood of a local cabdriver. The observer noted almost universal engagement by the class as nearly everyone felt personally affected by this event. In another example (8A) the observer wrote, "J. has started the reading assignment-he and other students are interestingly discussing first part of it."

An important clue to student engagement in learning was whether the student requests directions or help on an assignment or class project. When a student requests the assistance of the teacher, he or she was assumed to be engaged in the lesson or on task. Such observations were coded SECH. Examples include (8B) students talking to teachers in an attempt to solve problems, get help, or get answers to questions about class projects and assignments. An observer wrote (6A) a student "asked teacher if he is copying the right rules".

Hands-on activities are useful for engaging middle school students. Observers noted hands-on activities at all grade levels. Such observations were coded SEH. Even though student engagement while using a computer could be considered a hands-on activity, it was coded SEC, not SEH. Classes in music, science, and art used hands-on activities more than other classes.

Small groups are a popular format in the middle school. This was described earlier as an instructional technique under Teacher Behavior, coded ITG. When the students were observed engaged in their task as a group, the observation was coded SEG. Some hands-on projects were organized with small groups of students. In some cases, such observations were coded SEG as well as SEH. There were instances of small groups of students engaged in work on a computer,

which were coded SEC as well as SEG. However, the vast majority of observations coded SEG involved cooperative learning, small groups, and partner assignments. Classes where such observations were most prevalent include drama, band, music, and science. An example (6B) involved a reading class, where one student asked another for "help in math". Both students appeared to be finished with the task at hand, and the student helped the other with math. Other examples of student engagement in small groups included work on written assignments, research, and journal writing.

There were also instances of student engagement which were directly related to or caused by the teacher and her or his relationship with the students. Such observations were coded SET, and an example is at the end of the preceding paragraph, which was coded both SEG and SET. Observers reported (8B) very positive comments about many teachers, such as dynamic, caring, and understanding. It was also noted by more than one observer that a number of teachers referred to the students in affectionate terms. Such observations, by themselves, do not warrant being coded SET. However, when such observations are accompanied by evidence of student engagement, then they are considered to be in this category.

When teachers and students have a positive rapport, the classroom climate is often positive as well. This

contributes to student engagement because the students remain on task more than in other classrooms where the students and the teacher are fighting for control of the class. One observer noted (7A), "There was warmth between students and teachers." In another seventh grade classroom, probability was being taught in a traditional way, but the students were very involved in the lesson. The observer noted that the teacher seemed to have a positive rapport with the students.

Observers also noted that individual students were engaged in learning, coded SEI. When observers noted students working alone, such observations were coded SEI. For example, in a sixth grade classroom (6B) one student was working on a paper for social studies.

The most prolific observations which concern student engagement and disengagement were coded SE and SD, respectively. Both categories were noted at all grade levels, and in all classrooms. These observations were usually limited to whether or not a student or students were on or off task, working or goofing off, i.e., if they were engaged or disengaged.

Observations of student engagement included: most of the students were on task (7B); for the most part, students were engaged in learning and appeared to participate in the activities and utilize the time spent with their teachers

(7B); the students appear to be very engaged (7B); presentation of content was designed to facilitate active student engagement and interest (7B); teacher and student use of class time was productive and engaging (7B); instructional strategies appear to be supportive of the students as indicated by the high level of engagement and low level of off-task or disruptive behavior (7B); the students seemed engaged in their learning (8A); students were mainly on task (8A); the students are on task most of the time (8A); students appeared to be comfortable and contributing (8A); students are practicing what the teacher had been demonstrating—chords on the guitar in music class (8A); most of the students seemed engaged with the classes (8A); the student seems to be on task (8A); a class in human sexuality kept the kids interest for the entire period as kids talked about themselves (8A); students quiet and on task (8A); their time was on-task and engaged in their learning (8B); they were certainly engaged in the activity (8B); although student flirtation was up, so was student engagement in the subject matter (8B); most of the students seemed engaged with the classes (7A); most students quiet and on task (7A); most students are on task most of the time (7A); students kept on task (7A); students seemed to be more engaged in individual reading (6A).

Observations of student disengagement included: some

of the students shadowed did not engage in the work at hand in their classes, but spent their time disengaged—either daydreaming or talking to friends (7B); the activity seemed to be fun but a large number of students were disengaged (7B); an observer wrote (7B) that these students "were an embarrassment to the school"; most classroom instruction seems to be at a low level, possibly contributing to students' disinterest (6B); generally speaking, neither teachers nor students seem to be engaged in the subject matter (6B); the students spent time reading, doing a lot of worksheets, and looking bored (8A); an observer noted (8A) "BW writing under table in her notebook and shows to friend, takes it back and writes some more"; it was fairly typical that teachers taught the students who wanted to learn and the students that were off-task were ignored (8B); if a student wanted to put their head down and sleep, ignore the assignment and class rules, or just socialize, it frequently occurred (8B); a couple of teachers had little control over their classes and were happily allowing students to engage in playtime activities (6B); a math teacher in the decaying basement classroom allowed students to go into the hall and play with yo-yos (6B); there were quite a few classes where middle level chaos reigned (8B); students for the most part seemed disengaged (6A); as the students became bored or disconnected from the learning environment, they talked and

fidgeted (6A).

VI.

CONCLUSION

The teachers and schools which were a part of this study largely ignored the research on effective instructional techniques which engage adolescent learners. (Elkind, 1979) The nearly universal use of traditional direct instructional methods in most classrooms is an example of using an instructional technique to turn off students. Even so, the students were actively engaged in the learning process about thirty percent of the time. In view of the little use of truly engaging instructional techniques, this should probably be regarded as a high percentage. However, this also means that students were either disengaged or passively engaged in learning about seventy percent of the time.

The shadow study technique was effective in describing student engagement in learning. Two main aspects of the process of schooling are prime indicators of student engagement. One is student behavior, specifically on task behaviors. The other is teacher behavior and the instructional techniques employed in the classroom. Both were effectively described by the shadow study technique.

CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The data are summarized under the two research objectives:

1. What observable behaviors of students in a classroom setting indicate engagement in learning?
2. Are there any relationships between student engagement in learning and the utilization of middle level instructional techniques in the classroom?

In terms of student engagement, there were two discernable types observed, active and passive. Active engagement was noted when the students were involved in class discussions or small groups, and on task. Passive engagement included listening to a lecture, silent reading, pencil and paper seat activities, and testing. Essentially, active engagement involves some observable behavior associated with an active learning situation, such as talking to the teacher about an assignment, consulting with fellow students about a topic, writing assignments, reading assigned material, and doing research for a class project or assignment.

Passive engagement involved the student apparently engaged, but there is no way of knowing where the student's

mind was. Both types of engagement also involve the lack of off task behaviors. It is difficult to tell with certainty whether or not a student is engaged in learning.

It is much easier to tell when students are not engaged, particularly when they exhibit off task behaviors such as talking to friends, sleeping, reading a comic book, or day dreaming, but even this latter category can be deceptive. The problem is akin to that of cognition, determining what is going on in the mind of the observed.

On the other hand, the same is true for some off task behaviors. The daydreaming student may be carefully analyzing information and synthesizing an approach to solving a problem as part of an assignment, and the student asking questions may be disrupting the class, avoiding work, wasting class time, or manipulating the teacher to think for him or her.

This illustrates the difficulty of observing student engagement in learning. In one instance, the observers noted "interest" rather than "engagement". All observations coded as a form of engagement were not always recorded by the observer as engagement. Sometimes the key word was "work" or "working", in relation to student activity.

The shadow study technique showed itself to be an appropriate tool to describe student and teacher behavior in relation to student engagement in learning. There were many

factors in terms of student behavior in the classroom which indicate student engagement in learning. There were also many factors in terms of teacher behavior, especially instructional techniques, which, when successfully employed, stimulate student engagement in learning.

A. OBSERVABLE STUDENT BEHAVIORS INDICATING ENGAGEMENT

The first research question of this study was:

1. What observable behaviors of students in a classroom setting indicate engagement in learning?

A list of observable student behaviors indicating engagement included:

1. An absence of off task behaviors, including sleeping, talking/socializing, reading anything other than the lesson or assignment, walking around, daydreaming, playing a game, reading comics, doing a crossword puzzle, listening to music/radio.
2. Reading academically appropriate material.
3. Writing notes or comments regarding a lesson or assignment.
4. Delivering an oral report, answering a question.
5. Engaging in hands-on activities.
6. Engaging in small group activities.
7. Engaging in computer use.
8. Asking teacher for help or directions.
9. Engaging in student-teacher rapport.

10. Exhibiting on task behaviors, including individual student interest in a particular topic or subject, concentrating on a specific academic task, exhibiting a desire to learn, exhibiting a feeling of connectedness to the school, listening intently to the teacher or other students concerning an appropriate academic topic, and exercising control over educational decisions.

An important clue to student engagement in learning is whether the student requests directions or help on an assignment or class project. When a student requests the assistance of the teacher, he or she is often assumed to be engaged in the lesson or on task, but such behavior may be to disrupt the class.

There were also instances of student engagement which were directly related to or caused by the teacher and her or his relationship with the students. Observers reported very positive comments about many teachers, such as dynamic, caring, and understanding. It was also noted by more than one observer that a number of teachers referred to the students in affectionate terms.

When teachers and students have a positive rapport, the classroom climate is often positive as well. This contributes to student engagement because the students remain on task more than in other classrooms where the

students and the teacher are fighting for control of the class.

B. INSTRUCTIONAL TECHNIQUES AND STUDENT ENGAGEMENT

The second research question of this study was:

2. Are there any relationships between student engagement in learning and the utilization of middle level instructional techniques in the classroom?

A list of observable instructional techniques indicating student engagement included:

1. Small group instruction.
2. Hands-on activities.
3. Authentic instruction.
4. Computer related activities.
5. Whole class discussion.
6. Engaging in work on a long term project.
7. Engaging in work on a project of individual interest.
8. Evidence of an interdisciplinary or integrated curriculum.
9. Desks and tables arranged to accommodate the learner and the instructional strategy.
10. Local current events.

If the adolescent socializing process could be harnessed as an instructional technique, it would surely be a very powerful tool for engaging students in the learning process.

There was a lack of an interdisciplinary or integrated curriculum. Without an integrated approach, teachers do not confer with each other about coordinating the curriculum for the benefit of the students. Both the students and the teachers lose in an educational environment which fails to build on learning experiences in other classrooms. This observation was coded at every grade level in each school.

Some students are engaged by a particular instructional technique, others alienated by it. The predominant form of instruction in these schools was traditional in nature, and some students were turned off by this method of instruction. Observers reported a higher level of student disengagement when they were describing classes that relied more heavily upon direct instruction. Such techniques include lecturing, using extensive worksheets, and other in seat activities.

Hands-on activities are useful for engaging middle school students. Observers noted hands-on activities at all grade levels. Classes in music, science, and art used hands-on activities more than other classes.

Authentic instruction is one of the more motivating and engaging categories of instructional techniques for adolescents. Authentic instruction is important for student engagement in learning because it brings the outside world of community and culture into the classroom, making instruction relevant to life outside the school. The use of

authentic instruction was observed at all grade levels in the middle schools.

Students were often engaged in learning activities while working at a computer. The observers noted few off task behaviors while students were at a computer. In some instances, small groups or pairs of students were engaged in computer activities. Access to computers apparently increased the interest level of the students, and stimulated their engagement in learning activities.

Students were often engaged by in class discussions. In a particular class there was a discussion of current events, specifically a shooting of a local cabdriver. The observer noted almost universal engagement by the class as nearly everyone felt personally affected by this event.

Engaged students exhibit participation, connection, attachment, and integration in academic settings. Students who exercise control over the academic process have a stake in planning their education. Such students exhibit a clear understanding of the importance of educational goals. They feel that doing well in school is contingent on their own actions, and consequently believe that they possess the ability to succeed in school. Such students develop a sense of success and ownership for their learning, are involved in opportunities to solve real life problems, are involved in learning activities, and select tasks at the border of their

competencies. They exert intense effort and concentration, participate actively in all aspects of school, and show positive emotions including enthusiasm, optimism, curiosity, and interest.

The best motivation for engagement in learning is student interest. Students who exercise choices about the content of their learning help make it relevant to their lives. Showing students how they can transfer classroom learning to their own lives helps bridge the gap between detached participation and active engagement in learning.

Some students were more disengaged when direct instructional techniques were employed in the classroom. Observers reported a higher level of student disengagement when they were describing classes that relied more heavily upon direct instruction.

II.

CONCLUSIONS

Thirty percent active engagement in learning activities is too low for any middle school student, or for that matter, any school. The absence of research-based instructional strategies which are effective in engaging middle school students may be a major cause for these schools failure to actively engage most of their students each day.

What is needed is a new breed of curriculum writer, one

who makes learning interesting, utilizes topics of interest to middle school students, and helps them cope with the physical, social, and cognitive changes they are experiencing. People who write curriculum should be well versed in child development and in the subject matter they are writing about. Until we get this sort of person into the curriculum field, we are almost certain to have schools that do not effectively engage their students in the learning process.

In addition to student interest and authentic activities, middle school curriculum specialists must include in their bag of tricks, cooperative learning, ownership in the education process, control over academic success, intrinsic and extrinsic motivation, and a positive attitude toward school and its benefits to each individual student.

Teacher training should not be ignored, including in service training. As was observed in the schools in this study, many of the techniques that research has shown work well with adolescent learners are not being employed in the middle schools. In service workshops are needed that acquaint practicing teachers with current research on learning, and provide them with strategies to implement these important research findings in their classrooms.

Another important strategy for engaging young learners

is to emphasize the role of leadership in education. As in the schools in this study, the tools and facilities are often there to utilize engaging strategies for instruction. However, the teachers have no time to collaborate with other teachers in order to help integrate the curriculum, or to implement other useful strategies. This is just one of the problems that could be solved by an administrator who was aware of the importance of knowing the specific problems faced by his or her teachers, and knowing current research findings and techniques for implementing them in the schools.

One important implication of the computer in the classroom is the degree of student engagement in learning, in spite of or regardless of the teacher, the instructional technique, or the classroom environment. In fact, in one view, the teacher is irrelevant to the learning process as evidenced by student engagement when a computer is involved. Machines seem to engage students better than teachers do.

There is a strong need for socialization among middle school students. Feelings of isolation and uniqueness in the world need to be shared. The school should provide a safe forum for adolescent socialization, and the curriculum should support the development of social skills. The changes the adolescent is undergoing are real, and sharing thoughts and feelings with friends about these dramatic changes helps

the adolescent adapt to a changing self and a changing world.

Effective strategies which engage children in the learning process include student interest, cooperative learning, hands-on learning, and self-evaluation. These instructional strategies and many others are readily assessed in the classroom utilizing the shadow study technique.

Curriculum standards were not readily apparent in the classrooms. Such standards were not posted on the walls or on bulletin boards, as were rules of conduct. There was little mention of standardized testing or preparing for such tests, although they were a part of the lives of the students at these schools.

It is common for schools to have some form of curriculum standards. However, in the schools observed, there were no instances of curriculum standards (coded ITCN) being employed in instruction. The teachers apparently had an academic agenda but there was nothing observed which would support adherence to a standards-based curriculum, or any other curricular standard.

III.

IMPLICATIONS

The basic reason for this researcher abandoning a lucrative career in the private practice of law was to

explore the process of socialization. Specifically, this researcher wanted to identify some of the factors which caused young people to exhibit strongly anti-social behaviors which landed them in jail.

This study has provided the vehicle for the exploration of the process of socialization in the most common environment to adolescents, the middle school. This researcher posits that the same factors which engage and disengage a student in school are closely related to those which engage and disengage a person in society.

The shadow study, the research tool utilized in this study, will be applied to social settings outside the school. Detention centers and prisons which house adolescents will be studied in an attempt to identify some of the factors which cause criminal behavior. Other social contexts will also be studied which influence social behavior of young people.

This is an important problem because once a young person gains entrance to the criminal justice system, he or she often never fully emerges into society. Nearly seventy percent of all persons incarcerated are recidivists, and it is cheaper to send them to an Ivy League school than to jail. This simply makes social and economic sense. The needs of our young people should not be ignored.

IV. RECOMMENDATIONS

There should be a concerted effort to utilize research findings in the practice of teaching. Efforts should be made to assist teachers and administrators in becoming more knowledgeable in instructional techniques which can increase student engagement in learning. A national program must be initiated to put such engaging instructional techniques in practice in our middle schools in America.

Research is needed to uncover some of the reasons for the decline in student engagement in learning as the student progresses from elementary school, to middle school, and to high school. Since engagement in learning gets progressively worse as the student's contact with formal schooling increases, perhaps we should be looking at the school as the culprit, not the student.

The process of socialization should be explored with an eye toward designing curricula for middle school students. Because socialization is the preferred activity for middle school students, a curriculum based upon this activity has an excellent chance of success.

There are two aspects of the social curriculum that should be emphasized: the planned social curriculum and the unplanned social curriculum (hidden curriculum). There are many planned activities which take place at school that facilitate socialization both in and out of the classroom. ...Some of these ... include cooperative learning and task groups, student activities, participation in school governance, peer mediation, sports, and youth service. (Clark & Clark,

1994, pp.100-101)

A first impression from reading data packets was that the observers were racist and sexist. Observations such as white female teacher, black female teacher, white girl, white boy, black boy, young 35ish black woman teacher, white friend, only white boy, black kid, black woman principal, and African American student, all hit the sore spot of racism in America. None of these "observations" are in any way relevant to the process of education or in any way related to the research questions. But their very presence, and their use by more than one observer, illustrate the need for observer training, and show there is a need for education and awareness of diversity issues in the community.

The observers in the five previous national middle level shadow studies received little training, about 45 minutes the day before or the morning of the shadow study. In this study, however, observers were trained for two hours. However, even that may be improved upon, as suggested by the preceding paragraph.

The shadow study technique was successful when employed to describe student engagement in the classroom. This research tool should be used in order to investigate the recommendations from this study.

The data from the five previous shadow studies may be

analyzed again using the codes developed for this study to determine if the same topics and conclusions would emerge as did here.

A later study will investigate the relationship between observed student engagement in learning and student achievement.

APPENDIX A
SHADOW STUDY WORKSHOP

League of Women Voters of Minneapolis

SHADOW STUDY WORKSHOP

Monday, March 9, 1998

Workshop Coordinators

Dr. Sally N. Clark - Dr. Donald C. Clark
University of Arizona - Tucson, Arizona

I. Introduction

- A. Purpose of Workshop
- B. Organization and Sequence
- C. Confidentiality of Collected Information

II. Overview of Packets

- A. Color Coding
- B. Contents of Packets
 - 1. Purpose
 - 2. Use

III. Understanding the Middle School

IV. Shadowing

- A. Getting Started
 - 1. Office Procedures
 - 2. Student Schedule
 - 3. Making Contact -Students/Principals/Teachers

- B. **The Observation Process**
 - 1. **Placement for Observation (Be Unobtrusive)**
 - 2. **Observing Objectively (Facts - not opinions)**
 - C. **Recording of Field Notes (Coherent/Legible Notes)**
 - 1. **Behavior**
 - 2. **Environment**
 - 3. **Comments**
5. **The Structured Interview**
- A. **Establishing a Comfortable Climate - Location**
 - B. **Accepting Answers Without Judgment**
 - C. **Clarifying as Needed - Without Bias**
 - D. **Writing Quickly - Taking Notes**
 - E. **Pacing**
6. **Review and Reflection**
- A. **Complete Structured Interview Notes - Recopy if Necessary**
 - B. **Write Observations/Reflections**
 - C. **Prepare Materials for Submission**
7. **Structured Interview Activity**
- Questioning - Listening - Writing**
8. **Closing**

STRUCTURED INTERVIEW				
TASK	STUDENT	PRINCIPAL	TEACHER	FAMILY/COMMUNITY
	<p>8 At the beginning of the last period of the day, tell the teacher that you are shadowing a student and that you need to pull that student out of class for the last twenty minutes for a structured interview.</p> <p>9 Using the <i>Student - Structured Interview</i> form, ask the questions and record the answers. For yes or no questions circle the student's response. Move the questioning along quickly as you have a very limited amount of time. It is important not to detain the student beyond the end of the class period as she or he may have a bus to catch or a scheduled after-school activity.</p>	<p>5 At the agreed upon time, conduct the structured interview with the principal. Using the <i>Principal - Structured Interview</i> form, ask the questions and record the answers. For yes or no questions circle the principal's response.</p>	<p>6 Conduct the structured interview at the agreed upon time. Using the <i>Teacher - Structured Interview</i> form, ask the questions and record the answers. For yes or no questions circle the teacher's response.</p>	<p>3 Using the <i>Family/Community Liaison - Structured Interview</i> form, ask the questions and record the answers. For yes or no questions circle the Family/Community Liaison's response.</p>
Recopy/ Observation	<p>10 In the evening, using the second copy of the <i>Student - Structured Interview</i> form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the <i>Student Shadow Study - Observer's Reactions</i> form. When you have completed these two activities, place all six documents in the manila envelope.</p>	<p>6 In the evening, using the second copy of the <i>Principal - Structured Interview</i> form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the <i>Principal Shadow Study - Observer's Reactions</i> form. When you have completed these two activities, place all five documents in the manila envelope.</p>	<p>7 In the evening, using the second copy of the <i>Teacher - Structured Interview</i> form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the <i>Teacher Shadow Study - Observer's Reactions</i> form. When you have completed these two activities, place all five documents in the manila envelope.</p>	<p>7 In the evening, using the second copy of the <i>Family/Community - Structured Interview</i> form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the <i>Teacher Shadow Study - Observer's Reactions</i> form. When you have completed these two activities, place all five documents in the manila envelope.</p>

<p>Field Notes</p>	<p>5. Using the <i>Student Shadow Study Field Notes</i> forms (12 have been provided) begin to record your observations in the appropriate columns (Please write neatly so your comments can be read by the analysts) While you won't be oblivious to other matters, try to keep your focus on the individual students and what he or she is apparently doing (Use an initial or fictitious name for the student shadowed)</p> <p>6. The 5-7 minute time interval will give you a bit of flexibility, but will definitely show the flow of actions and activities. More frequent entries are acceptable</p> <p>Start a new time interval with each change of class or period. Go with the student to P.E. class, lunch, and as nearly as possible, keep up with the individual so you can vicariously experience his or her full school day</p> <p>7. If the student, after the third or fourth hour, confronts you with the question, "Are you following me?" pass it off with a vague statement such as, "You know, I guess you have been in every class I've visited." In this and all cases, your intuition and common sense will be the best guide.</p>	<p>3. Using the <i>Principal Shadow Study Field Notes</i> forms (12 have been provided) begin to record your observations in the appropriate columns. (Please write neatly so your comments can be read by the analysts) While you won't be oblivious to other matters, try to keep your focus on the principal and what he or she is doing</p> <p>4. The 7 - 10 minute time interval will give you a bit of flexibility, but will definitely show the flow of actions and activities. More frequent entries are acceptable</p> <p>Remain with the principal throughout the day. It is most important that you keep up with him or her so you can vicariously experience his or her full school day</p>	<p>4. Using the <i>Teacher Shadow Study Field Notes</i> forms (12 have been provided) begin to record your observations in the appropriate columns (Please write neatly so your comments can be read by the analysts) While you won't be oblivious to other matters, try to keep your focus on the teacher and what he or she is doing</p> <p>5. The 7 - 10 minute time interval will give you a bit of flexibility, but will definitely show the flow of actions and activities. More frequent entries are acceptable</p> <p>Start a new time interval with each change of class or period. Go with the teacher to classes, lunch, duty assignments, office, faculty room, etc - as nearly as possible, keep up with the teacher so you can vicariously experience his or her full school day.</p>	
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<p>Making Contact/ Location</p>	<p>3. Secure a copy of the student schedule and copy it on to the <i>Student Information Form</i>.</p> <p>4. Report to the student's first period class before class begins. Identify yourself to the teacher and ask him/her to assist you in unobtrusively identifying the student to be shadowed. Find a seat out of the way - but where you can observe the student (usually in the back or side of the room).</p> <p><i>Note:</i> Only the first and last period teachers should know who you are shadowing. When you go to the other classes, introduce yourself to the teacher and say: "I am participating in the Shadow Study and I will be shadowing a student in your class."</p>	<p>2. Identify yourself to the Principal and thank him or her for allowing you to spend the day observing. During your initial conversation schedule a time when you can do the structured interview.</p> <p><i>Note:</i> During the day you will be observing a principal in a variety of situations (meetings, classroom observations, walking the halls and school campus, informal conversations, lunch, etc.) The principal will be involved in completing his or her daily responsibilities, and it is your responsibility to record the events of the day as accurately as possible. In conducting your observation it is important that you be as unobtrusive as possible so that the activities of the day can be conducted in a normal manner. In cases that involve personnel or other sensitive issues, you may be asked to leave the room while the discussion is taking place. If that happens, note the time on your <i>Principal Shadow Study Field-Notes</i>. When he or she has completed the discussion, resume your observation and note taking.</p>	<p>3. After getting the room number of the teacher's first period class, go to the classroom before the class begins. Identify yourself to the teacher and thank him/her for allowing you to spend the day shadowing. Schedule a time when the structured interview will be conducted. Find a seat out of the way - but where you can observe the teacher (usually in the back or side of the room).</p>	<p>2. Identify yourself to the <i>Family/Community Liaison</i> and thank him or her for allowing you to conduct the interview.</p>
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CORRELATION OF DIRECTIONS

TASK	STUDENT	PRINCIPAL	TEACHER	FAMILY/COMMUNITY
Assign Sheet	2 Please arrive at the school at the time indicated on the <i>Student Shadow Assignment Sheet</i> and check in with the school contact person	1 Please arrive at the school at the time indicated on the <i>Principal Shadow Assignment Sheet</i> and check in with the school contact person	2 Please arrive at the school at the time indicated on the <i>Student Shadow Assignment Sheet</i> and check in with the school contact person	1 Please arrive at the school at the time indicated on the <i>Family Community Liaison Interview Assignment Sheet</i> and check in with the school contact person

APPENDIX B
SHADOW STUDY DIRECTIONS AND
FIELDNOTE FORMS

DIRECTIONS FOR STUDENT SHADOWERS

During the week of March 9, 1998, you will be part of a major study of middle level schools in Minneapolis. As one of many volunteer observers you will follow a randomly selected sixth, seventh, or eighth grade student, and, as nearly as possible, live the school day as he or she does, recording events and impressions. This day will prove to be a valuable, informative, and meaningful experience for you personally. In addition, the information you collect will provide a data base needed to answer questions concerning middle level education in Minneapolis.

Your shadow study packet includes the following:

1. Directions for Student Shadowers
2. Student Shadow Assignment Sheet
3. Student Information Form
4. Student Shadow Study Field Notes (12 copies)
5. Student Structured Interview (2 copies)
6. Student Shadow Study - Observer's Reactions

Please check to see if you have all of these forms!

To ensure reasonable objectivity, uniformity, and success, please read the directions and follow them carefully.

1. Using a random selection procedure you have been assigned a student to shadow for the entire day. In case the identified student is absent, the names of two alternate students have been provided.
2. Please arrive at the school at the time indicated on the *Student Shadow Assignment Sheet* and check in with the school contact person.
3. Secure a copy of the student schedule and copy it on to the *Student Information Form*.
4. Report to the student's first period class before class begins. Identify yourself to the teacher and ask him/her to assist you in unobtrusively identifying the student to be shadowed. Find a seat out of the way - but where you can observe the student (usually in the back or side of the room).

Note: Only the first and last period teachers should know who you are shadowing. When you go to the other classes, introduce yourself to the teacher and say: "I am participating in the Shadow Study and I will be shadowing a student in your class."

Directions - Student Shadowers

5. Using the *Student Shadow Study Field Notes* forms (12 have been provided) begin to record your observations in the appropriate columns. **(Please write neatly so your comments can be read by the analysts)**. While you won't be oblivious to other matters, try to keep your focus on the individual students and what he or she is apparently doing. (Use an initial or fictitious name for the student shadowed)
6. The 5-7 minute time interval will give you a bit of flexibility, but will definitely show the flow of actions and activities. More frequent entries are acceptable.

Start a new time interval with each change of class or period. Go with the student to P.E. class, lunch, and as nearly as possible, keep up with the individual so you can vicariously experience his or her full school day.
7. If the student, after the third or fourth hour, confronts you with the question, "Are you following me?" pass it off with a vague statement such as, "You know, I guess you have been in every class I've visited." In this and all cases, your intuition and common sense will be the best guide.
8. At the beginning of the last period of the day, tell the teacher that you are shadowing a student and that you need to pull that student out of class for the last twenty minutes for a structured interview.
9. Using the *Student - Structured Interview* form, ask the questions and record the answers. For yes or no questions circle the student's response. Move the questioning along quickly as you have a very limited amount of time. It is important not to detain the student beyond the end of the class period as she or he may have a bus to catch or a scheduled after-school activity.
10. In the evening, using the second copy of the *Student - Structured Interview* form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the *Student Shadow Study - Observer's Reactions* form. When you have completed these two activities, place all six documents in the manila envelope.

STUDENT SHADOW ASSIGNMENT SHEET

Name of Shadower _____

Date of Shadowing _____

Assigned School _____

School Contact Person _____

School Address _____

Telephone _____

Plan to Arrive at the school (time) _____

Name of Student to Be Shadowed _____

Alternate Student # 1 _____

Alternate Student # 2 _____

STUDENT SHADOW STUDY FIELD NOTES
(Record your observations every 5 to 7 minutes in the appropriate columns)

Time	Specific Student Behavior at 5 to 7 minute Intervals	Environment	Comments/Impressions

League of Women Voters of Minneapolis - Clark/Clark

STUDENT SHADOW STUDY

Observer's Reactions

Having spent a day observing a middle school student, some of my impressions and reactions are:

School _____

Observer _____ Date _____

DIRECTIONS FOR TEACHER SHADOWERS

During the week of March 9, 1998, you will be part of a major study of middle level schools in Minneapolis. As one of many volunteer observers you will follow a randomly selected sixth, seventh, or eighth grade teacher, and, as nearly as possible, live the school day as he or she does, recording events and impressions. This day will prove to be a valuable, informative, and meaningful experience for you personally. In addition, the information you collect will help provide a data base needed to answer questions concerning middle level education in Minneapolis.

Your shadow study packet includes the following:

1. Directions for Teacher Shadowers
2. Teacher Shadow Assignment Sheet
3. Teacher Shadow Study Field Notes (12 copies)
4. Teacher Structured Interview (2 copies)
5. Teacher Shadow Study - Observer's Reactions

Please check to see if you have all of these forms!

To ensure reasonable objectivity, uniformity, and success, please read the directions and follow them carefully.

1. Using a random selection procedure you have been assigned a teacher to shadow for the entire day. In case the identified teacher is absent, the names of two alternate teachers have been provided.
2. Please arrive at the school at the time indicated on the *Student Shadow Assignment Sheet* and check in with the school contact person.
3. After getting the room number of the teacher's first period class, go to the classroom before the class begins. Identify yourself to the teacher and thank him/her for allowing you to spend the day shadowing. Schedule a time when the structured interview will be conducted. Find a seat out of the way - but where you can observe the teacher (usually in the back or side of the room).
4. Using the *Teacher Shadow Study Field Notes* forms (12 have been provided) begin to record your observations in the appropriate columns. **(Please write neatly so your comments can be read by the analysts)**. While you won't be oblivious to other matters, try to keep your focus on the teacher and what he or she is doing.

Directions - Teacher Shadowers

5. The 7 - 10 minute time interval will give you a bit of flexibility, but will definitely show the flow of actions and activities. More frequent entries are acceptable.

Start a new time interval with each change of class or period. Go with the teacher to classes, lunch, duty assignments, office, faculty room , etc. - as nearly as possible, keep up with the teacher so you can vicariously experience his or her full school day.

6. Conduct the structured interview at the agreed upon time. Using the *Teacher - Structured Interview* form, ask the questions and record the answers. For yes or no questions circle the teacher's response.
7. In the evening, using the second copy of the *Teacher - Structured Interview* form, copy the answers so that the analysts can read your responses. In addition, reflect on your day's experience by writing your impressions and reactions on the *Teacher Shadow Study - Observer's Reactions* form. When you have completed these two activities, place all five documents in the manila envelope.

TEACHER SHADOW ASSIGNMENT SHEET

Name of Shadower _____

Date of Shadowing _____

Assigned School _____

School Contact Person _____

Address _____

Telephone _____

Time School Begins _____

Plan to Arrive at the school (time) _____

Name of Teacher to Be Shadowed _____

Alternate Teacher # 1 _____

Alternate Teacher # 2 _____

TEACHER SHADOW STUDY FIELD NOTES
(Record your observations every 7 to 10 minutes in the appropriate columns)

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Time	Specific Teacher Behavior/Activity at 7 to 10 minute Intervals	Environment	Comments/Impressions

TEACHER SHADOW STUDY

Observer's Reactions

Having spent a day observing a middle school teacher, some of my impressions and reactions are:

School _____

Observer _____ Date _____

REFERENCES

Adams, N., Cooper, G., Johnson, L., and Wojtysiak, K. (1996). Improving student engagement in learning activities. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 400 076)

Ainley, Mary D. (1993). Styles of engagement with learning: Multidimensional assessment of their relationship with strategy use and school achievement. Journal of Educational Psychology, 85, no. 3, pp. 395-405.

Arends, R.I. (1994). Learning to teach, Third Edition. New York: McGraw-Hill.

Barker, Roger G. and Wright, Herbert F. (1951). One boy's day: A specimen record of behavior. New York: Archon Books.

Bogdan, Robert C. and Biklen, Sari Knopp (1992). Qualitative research for education, Second Edition. Boston: Allyn and Bacon.

Brown, J., Collins, A., and Duguid, P. (1989). Situated cognition and the culture of learning, Educational Researcher, 18, no. 1.

Carnegie Task Force on Education of Young Adolescents (1989). Turning points: Preparing American youth for the 21st century. Washington, D.C. Carnegie Council on Adolescent Development.

Chambers, Kevin (1994). What makes a student improve? Teaching Education, 6, no. 1, Fall-Winter 1994.

Clark, Donald C. and Clark, Sally N. (1997). Addressing dilemmas inherent in educational leadership preparation programs through collaborative restructuring, Peabody Journal of Education, 72(2), pp. 21-41.

Clark, Donald C. and Clark, Sally N. (1994). Restructuring the middle level school. Albany: State University of New York Press.

Clark, Donald C. and Clark, Sally N. (1994). Meeting the needs of young adolescents. Schools in the Middle, 4, no. 1, September 1994.

Clark, Sally N. and Clark, Donald C. (1990). Restructuring middle schools: Strategies for using Turning Points. Schools in the Middle, December 1990.

Clark, Sally N. and Clark, Donald C. (1989). School restructuring: A leadership challenge for middle level administrators. Schools in the Middle, February 1989.

Clark, Sally N. and Clark, Donald C. (1984). Creating a responsive middle level school through systematic long-range planning. NASSP Bulletin, September, 1984.

Denny, Terry (1978, May). Story telling and educational understanding. Paper presented at the annual meeting of the International Reading Association, Houston.

Derrickson, Denise (1995). At-risk ninth-grade students and the perception of success. Teaching and Change, 2, No. 4, Summer 1995, pp. 352-368.

Elkind, David (1979). The child and society. New York: Oxford University Press.

Elkind, David (1978). Understanding the young adolescent, Adolescence, XIII, no. 49, Spring 1978.

Elkind, David (1970). Children and adolescents: Interpretive essays on Jean Piaget. New York: Oxford University Press.

Eisner, Elliot W., and Peshkin, Alan (1990). Qualitative inquiry in education. New York: Teachers College Press.

Evertson, C.M., and Green, J.L. (1986). Observation as inquiry and Method. In M.C. Wittrock (Ed.), Handbook of research on teaching, Third Edition. New York: Macmillan.

Finn, Jeremy D. (1993). School engagement & students at risk. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 362 322)

George, P.S. & Alexander, W.M. (1993). The exemplary middle school, Second Edition. New York: Harcourt Brace Jovanovich.

Goodenow, Carol (1992). School motivation, engagement, and sense of belonging among urban adolescent students. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 349 364)

Gulino, Joseph A. (1997). Middle school programmatic practices and student satisfaction. Unpublished doctoral dissertation, University of Missouri, Columbia.

Howard, Bruce C. (1996). Cognitive engagement in cooperative learning. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 404 352)

Johnson, C.G. (1987). The feasibility of delivering a learning-style inventory via a computer-based delivery system. Unpublished doctoral dissertation, The University of Arizona, 1987.

Kinzig, Karen, and Nakai, Janet (1995). Improving student engagement in social and academic activities. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 391 583)

Lounsbury, John H. and Clark, Donald C. (1990). Inside grade eight: From apathy to excitement. Reston, Virginia: NASSP.

Lounsbury, John H. and Johnson, J. Howard (1988). Life in the three sixth grades. Reston, Virginia: NASSP.

Lounsbury, John H. and Marani, Jean V. (1964). The junior high school we saw: One day in the eighth grade. Washington, D.C.: ASCD.

Marks, Helen M. (1995). Student engagement in the classrooms of restructuring the schools. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 381 884)

Maxwell, J.A. (1992). Understanding and validity in qualitative research. Harvard Educational Review, 62, no. 3, pp. 279-300.

Newmann, Fred M. (1996). Authentic achievement: Restructuring schools for intellectual quality. San Francisco: Jossey-Bass.

Newmann, Fred M. (1989). Student engagement and high school reform. Educational Leadership, 46, no. 5, p 34.

Painter, Bryan A. (1998). Relationships between school leadership, student engagement, and teacher-student relationships. Unpublished doctoral dissertation, University of Missouri-Columbia, May, 1998.

Piaget, J. (1969). The theory of stages in cognitive development. New York: McGraw-Hill.

Pintrich, Paul R. and DeGroot, Elisabeth V. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of Educational Psychology, 82, no. 1, pp. 33-40.

Polite, Vernon C., McClure, Robert, and Rollie, Donald L. (1997). The emerging reflective urban principal: the role of shadowing encounters, Urban Education, 31 no. 5, January 1997, pp. 466-489.

Prickett, Juanita (1976). Comparison of the comprehension of conservation related vocabulary with conservation ability by children with normal language development. Unpublished doctoral dissertation, University of Illinois, May, 1976.

Ross, S., McCormick, D., Krisak, N., and Amand, P. (1985). Personalizing context in teaching mathematical concepts: Teacher-managed and computer-assisted models. Educational Communication and Technology Journal, 33(3) pp. 169-178.

Shockley, R. and Johnston, J.H. (1992). Time on task: Implications for middle level instruction. In S.N. Clark & D.C. Clark (Eds.) Schools in the middle: A decade of growth and change (pp. 131-136). Reston, Virginia: NASSP.

Skinner, Ellen A., and Belmont, Michael J., (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. Journal of Educational Psychology, 85, no. 4, pp. 571-581.

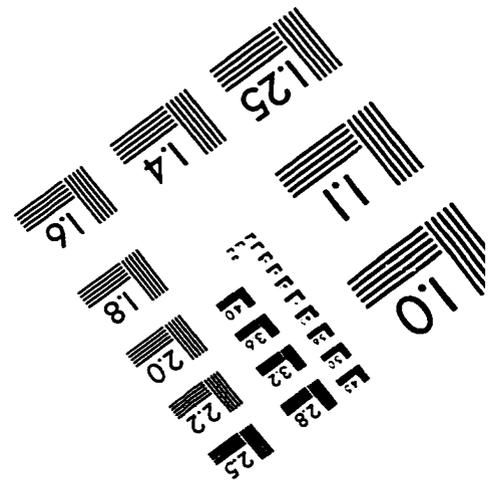
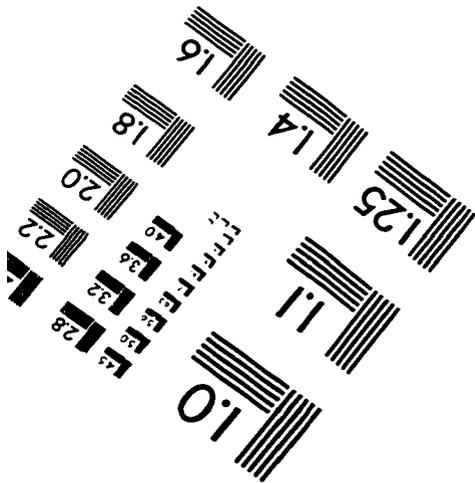
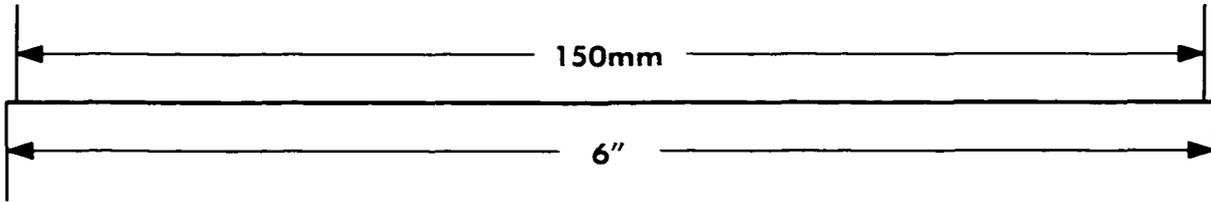
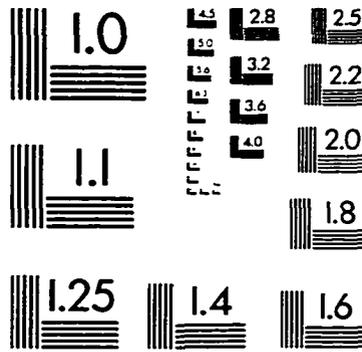
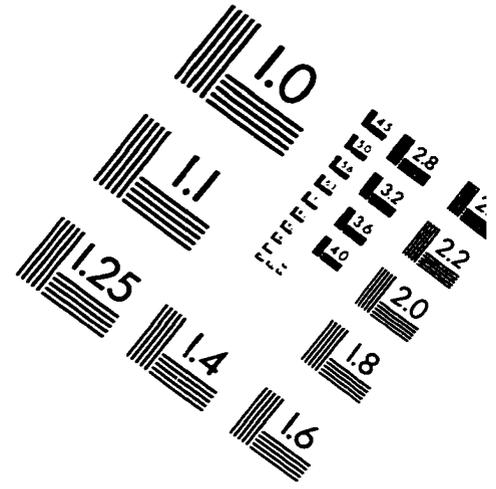
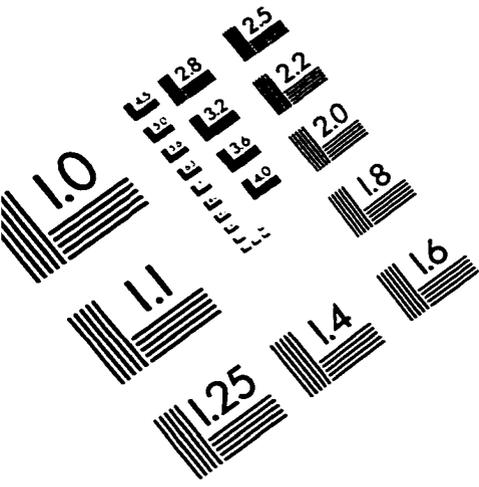
Skinner, Ellen A., Wellborn, James G., and Connell, James P. (1990). What it takes to do well in school and whether I've got it: A process model of perceived control and children's engagement and achievement in school, Journal of Educational Psychology, 82, no. 1, pp. 22-32.

Thornburg, H. D. (1980). Early adolescents: Their developmental characteristics. The High School Journal, March, pp. 215-221.

Wolcott, H.F., (1992). On seeking-and rejecting-validity in qualitative research. In Eisner and Peshkin (Eds.), Qualitative inquiry in education. New York: Teachers College Press.

Zahorik, John A. (1996). Elementary and secondary teachers' reports of how they make learning interesting, The Elementary School Journal, 96, no. 5, pp. 551-565.

IMAGE EVALUATION TEST TARGET (QA-3)



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