

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

**A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600**

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

**HOW PERCEPTIONS OF THE FUTURE
INFLUENCE ACHIEVEMENT MOTIVATION**

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By

**Stephanie J. Young Brickman
Norman, Oklahoma
1998**

UMI Number: 9905612

**Copyright 1999 by
Brickman, Stephanie J. Young**

All rights reserved.

**UMI Microform 9905612
Copyright 1998, by UMI Company. All rights reserved.**

**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI
300 North Zeeb Road
Ann Arbor, MI 48103

**c Copyright by Stephanie J. Young Brickman
All Rights Reserved**

**HOW PERCEPTIONS OF THE FUTURE
INFLUENCE ACHIEVEMENT MOTIVATION**

**A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY**

BY

Raymond B. Miller

Barbara A. Hines

Teressa K. DeBrocken

Mary Joanne O'Hairi

[Signature]

Acknowledgments

The last several years I have focused on graduate degrees in psychology. Throughout that time there have been many family members, friends, community and church members, school officials and students who have freely given of their time and effort so that I might learn.

The love and support of my husband, “Barney” has been never ending. I cannot recall any statement regarding the amount of time I spent studying or time away from home. He literally took responsibility for every aspect of parenting our three children so that I might pursue my career. He mastered all the important household chores such as clipping coupons to separating the colors before washing the clothes. He has been the sole financial and emotional supporter for our family.

My returning to school was a family decision. It was no doubt a financial strain, not only for my husband but also our children. At a time when a mother should be helping her children follow their dreams, my children were helping me to follow mine. First Jennifer and then Jacob were primary care givers for their little sister, Jeanne Rae. All three have cleaned the house, learned to cook, do their own laundry and held jobs to earn spending money and help with college expenses. At one point Jacob unselfishly loaned us money to buy the family groceries. As Jennifer and Jacob went to college, they continued to contribute extensively.

Jennifer welcomed me enthusiastically when I called and asked if I could come to college with her. She became my college friend; she provided me with support and

a place to stay when I was too tired to make the ninety-mile trip back home. Soon after, Jacob joined her at college. When I called and asked if I could move in with them they both welcomed me with open arms. Soon after, Jennifer married and my son-in-law, Steve, also welcomed me with open arms. I'm sure the experiences I have shared with my children are unique to that of any mother.

Jeanne Rae has carried the burden of being the only child supporter of her mother left at home. Over the course of the last four years she has cleaned my house faithfully, learned to keep her father in line and do the bookkeeping for his construction business. She took over the reconstruction of my kitchen after I caught it on fire while on the computer, and saved the house from extensive water damage during a storm. She even shared her personal phone line so that I could access the Internet. To my husband and all of my children, with all my love, I thank you.

To my parents, Loren and Betty Young, thank you for instilling the values and beliefs that have shaped my life. Those values and beliefs are the very basis of my work. To my sister, Paula and her family, I would like to say thank you for taking on extra family duties and responsibilities because I was too busy. I would like to thank my grandmother, Pauline Smith, for being my inspiration to persist and endure for all the most important things in life. The most vivid memory of my grandfather, the late Mike Smith, is walking in the living room and seeing him reading. I suppose he has become my inspiration to continue in school. I have had the privilege to have teachers to help me learn, he had to learn on his own.

I would like to thank my mother-in-law, Alice Brickman and the McCrary family for their support and understanding as I pursued my degree. I would also like to acknowledge my father-in-law, the late Vernie Brickman. His kindness was unsurpassed by none. He managed our business during my masters degree, made sure the children had lunch and taxied them to their activities.

I owe a great deal to my health care provider, counselor and life long friend, Mary Schenk. I thank her for teaching me so many wonderful life lessons. I also want to extend a very special thank you to Dee McKenna. She has been my walking partner and lent support for more than 10 years, but most importantly she has been my companion in faith and spirit.

I would like to thank the students who shared their stories so that I, and many others might learn. They invested in my goal to search for an understanding of why students learn or do not learn. Their participation in this research will be valuable for many years to come. I also appreciate their parents, who gave their permission and obviously instilled the value of education and the responsibility each need to take to improve educational opportunities for others.

I would like to thank the many professors who have taught and guided me throughout my educational journey. Teachers are special people to me. A few hold very special places in my heart. Dr. Raymond Miller certainly earned his position while serving as my dissertation chairman. Words cannot express my gratitude for everything he taught me, so I will simply state he will always be my teacher. I would

also like to thank his wife, Jean, whose support I felt in Greece and for the many hours that she must have spent supporting Dr. Miller while he had me as a student.

I would like to thank Dr. Calvin Stoltenberg and Dr. Teresa DeBacker for providing very unique support during the writing of my dissertation. Dr. Barbara Greene, a committee member and my professor of cognition, I thank her for helping spawn the idea that a students' failure at school could be the result of an ill-defined problem space. I would like to extend a very special thank you to Dr. Mary John O'Hare who stepped in at the last minute to serve as a committee member. Her serving made it possible for me to complete my final defense this semester.

I would like to thank two who served as honorary members of my committee. Dr. Willy Lens of the University of Leuven, Belgium, and Dr. Torgrim Gjesme' of the Educational Research Center of Oslo, Norway. Dr. Lens invited me to participate at an international conference in Greece where both provided input, then both graciously agreed to provide feedback on my dissertation.

A special thank you to Dr. Bill Graves for his support of time, input and feedback on my dissertation. Another gesture of support came from he and his wife Joan, who after my children were no longer in Norman welcomed me in their home as I completed my degree.

Many others have supported me, their words of encouragement and support helped make the completion of my degree possible. I feel very fortunate to have had so many people care and help me learn.

TABLE OF CONTENTS

Title	Page
List of Figures	xii
Abstract	xiii
CHAPTER ONE	
Introduction and Background of Study	1
Related Literature	10
Future Goals	10
Process of Planning	23
The Role of Instrumentality in Self-Regulation	29
Planning: Integrating Remarks	37
The Impact of Faulty Planning	39
Summary	42
Research Purpose and Questions	43
Purpose	43
Research Questions	44
Context	44
Limitations	46
Researcher Bias	47
CHAPTER TWO	
METHODS	50
Case Study Design	51
Selection of the Case and Unit of Analysis	52
Participant Identification Procedures	64
Procedures	66
Protocol: Research Question One	66
Procedures: Questions One	71
Data Analysis Procedure: Question One	72
Protocol: Research Question Two	75
Procedures: Question Two	78
Data Analysis Procedure: Question Two	78
Protocol: Research Question Three	80
Data Analysis Procedure: Question Three	81

CHAPTER THREE

Results: Case Studies and Motivational Profiles	84
Case Study One	86
Case Study 1: Goals and Plans for the Future	86
Future Goals and Subgoals	93
Alternative Educational Decision	98
Past Teacher and Student Interaction	99
Past Peer Interaction	101
Past Subjects Liked and Disliked	102
Past Obstacles and Strategies for Classroom Work	103
Present Teacher and Student Interaction	106
Present Subjects Liked and Disliked	107
Present Obstacles and Strategies	108
Knowledge and Relationships of	
High School to Future Goals	110
Present Perceived Instrumentality	119
Perceptions of Ability of Present Tasks	120
Summary	121
Motivational Profile	124
Intrinsic and Extrinsic and Future Valuing	124
Immediate Classroom Goals	126
Cognitive Engagement	131
Present Academic Achievement	138
Case Study Two	
Case Study 2: Goals and Plans for the Future	141
Future Goals and Subgoals	147
Alternative Educational Decision	153
Past Teacher and Student Interaction	153
Past Peer Interaction	159
Past Subjects Liked and Disliked	160
Past Obstacles and Strategies for Classroom Work	160
Present Teacher and Student Interaction	161
Present Peer Interaction	162
Present Subjects Liked and Disliked	167
Present Obstacles and Strategies	168
Knowledge and Relationships	
of High School To Future Goals	170
Present Perceived Instrumentality	178

Perceptions of Ability of Present Tasks	179
Summary	180
Motivational Profile: Case Study 2	182
Intrinsic and Extrinsic and Future Valuing	182
Immediate Classroom Goals	186
Cognitive Engagement	191
Present Academic Achievement	199
Case Study Three	202
Case Study 3: Goals and Plans for the Future	202
Future Goals and Subgoals	207
Alternative Educational Decision	212
Past Teacher and Student Interaction	212
Past Peer Interaction	220
Past Subjects Liked and Disliked	220
Past Obstacles and Strategies for Classroom Work	221
Present Teacher and Student Interaction	222
Present Peer Interaction	224
Present Subjects Liked and Disliked	226
Present Obstacles and Strategies	227
Knowledge and Relationships of	
High School to Future Goals	228
Present Perceived Instrumentality	235
Perceptions of Ability of Present Tasks	236
Summary	237
Motivational Profile: Case Study 3	239
Intrinsic and Extrinsic and Future Valuing	239
Immediate Classroom Goals	242
Cognitive Engagement	247
Present Academic Achievement	255
Representation of Data to Model	258
Sociocultural Knowledge	259
Sociocultural Knowledge and Self-Concepts of Ability	261
Educational Experiences and Perceptions of Ability	262
Relationships of Plans to Self-Regulation	263

CHAPTER FOUR

Discussion	268
-------------------	------------

REFERENCES	280
-------------------	------------

APPENDICES

Appendix A	291
-------------------	------------

Appendix B Case Study One	317
----------------------------------	------------

Appendix C Case Study Two	334
----------------------------------	------------

Appendix D Case Study Three	351
------------------------------------	------------

LIST OF FIGURES

Theoretical Model

7

Abstract

The research reported here was guided by a theoretical model developed by Miller and Brickman (1997). The model depicts future goals and the plans to reach them as impacting self-regulation for present achievement. To investigate the knowledge upon which plans for the future develop case study methods were used. The participants were ninth grade students attending an alternative school, one Mexican female, one Cheyenne-Arapaho male and one Caucasian female. Data sources included: interviews, historical data, autobiographical reports, surveys tapping students' present classroom goals, cognitive engagement and self-regulation (Miller, et al., 1996), and repeated observations. These data supported that knowledge about the future is represented as plans and that much of this knowledge was the result of sociocultural experiences. Also contributing to the development of plans were the students' school experiences. All three students' plans consisted of relationships between the students' past, present and reported future goals. As predicted by the model, plans were found related to achievement through perceived instrumentality. Students' present level of achievement and self-reported regulation were consistent with the types of present goals they reported on surveys, which were consistent with what they reported in interviews as instrumentally related to reaching their future goals. Finally, the results of a cross-case analysis supported Miller and Brickman's (1997) model. In all three cases these data revealed that future goals provided incentive value through the generation of a plan of subgoals, and influenced self-regulation of academic behaviors

toward their future through the perceived instrumentality of the present task.

Chapter I

Introduction

Background of Study

Our behavior is bound to the future. At this moment you have decided to pick up this research and turn to this page. The number of possible reasons why someone would choose to do this could be equal to the number of people who pick it up. Each person's reason is motivated by past knowledge and perceptions of ability to accomplish the task. Although each person may have a different reason, each anticipates that successfully performing this immediate reading task will result in some goal accomplished. Your reason for reading this will determine the level of personal investment that you believe will result in reaching your goal. Even if your reasons are unclear at this moment, you expect that the goal will become clearer as you read. In addition to reaching the immediate goal you expect to gain a clearer perception of what you might need to do with the knowledge you gain, the next goal. Upon the completion of that goal, yet another goal could be realized. In other words, you don't anticipate that reading this will be an end, in and of itself. You do not expect the information you gain to be forgotten, never recalled or not used sometime in the near or distant future.

As you read you will develop a perception of your ability to proceed along the path of additional or multiple possible goals that you have come to perceive by reading

this research. As you perform tasks toward goal accomplishment you will observe, monitor and evaluate your progression. You will adjust your behavior according to your perception of what is to be accomplished at each goal point to continue toward other goals in the future. You have been motivated to pick up this research by the anticipation of reaching some other future goal. Reading this research is merely a step along a path to reach more distant goals in the future. This is the phenomenon of the nature of humans' need to learn. The need to learn represents the desire of people to successfully progress toward the future.

This phenomenon is not limited by age, gender or culture. Students represent the epitome of this phenomenon. They attend school with the goal to learn. They expect that as they progress through school that the goals for completing an education will become clearer. They perform social and academic tasks with the anticipation that they will learn what goals are possible and how to reach those goals. They too, desire to successfully experience learning and moving forward in both social and academic domains, this is human nature. Based on their knowledge they determine what social and academic goals they need to accomplish at school and determine their likelihood of successfully progressing toward the future.

We each experience this phenomenon, we can even envision it in others. A student who is successfully accomplishing school tasks is perceived as motivated. We can envision that they will successfully accomplish goals along a path and move successfully toward the future. On the other end of the continuum are students we envision as not learning. They are often perceived as not motivated toward

successfully achieving socially and academically. They are often perceived as not making the choice to learn, and are not envisioned as moving toward a successful future. This research was conducted to gain a better understanding of how the knowledge that students hold about their possible future goals influences their present academic achievement.

The idea that perceptions of the future influence present behavior is not a new concept. Early psychologists theorized that the capability to fantasize about the future was a key concept in understanding human nature. Alfred Adler (1927, 1929) used the term “*fictional finalism*” to refer to an imagined central life goal that guides a person’s behavior, and hypothesized that individuals develop a style of life in response to their imagined future goal. He viewed humans to fictionally conceptualize the world which enabled them to anticipate goals and consequences, thus directing behaviors toward fulfilling their innate human need to seek mastery (Ansbacher and Ansbacher, 1956).

Albert Bandura’s (1986) social learning theory is based on the idea that humans are social beings, with a central goal to adapt within the social context. His theory is a comprehensive conceptualization of how humans develop cognitively and use their perceptions of future goals as a guiding force to learn in everyday life. He stated that a unique need of human nature is to “sense” moving forward. During everyday events people learn what to expect from their behaviors. Bandura (1986) stated that it is human nature to want to learn to successfully regulate one’s behavior

through these everyday life events. People are motivated to learn by the anticipation of what they believe will result in success. They cognitively develop perceptions of what can be expected from their behaviors in the future and plan what behaviors will be needed to move forward (Bandura, 1986). The purpose of this study is to describe the plans students have for reaching their future goals, and explore how these cognitive representations of future goals and plans might influence their everyday academic achievement.

This study will be guided by a theoretical framework presented by Miller & Brickman (1997). This theoretical model depicts the role that future goals might play in present academic achievement. Through the analysis of these data we expect to gain a better understanding of how students' future goals impact the self-regulation needed to successfully achieve at school.

Chapter two will present a synthesis of research and the theoretical framework to investigate the knowledge upon which cognitive representations of future goals and plans develop, and how they might come to guide and direct academic achievement. Researchers whose work has been directed toward the understanding of the role of perceptions of the future have found that motivation and the process of self-regulating behavior begins with the knowledge that people cognitively project into the future.

Nuttin (1984) stated that most motives, interests, and goals are future oriented, they refer to anticipated future events and objectives. Since goals are represented as expectations concerning the future, the knowledge on which these expectations are

based plays an important role in the development of future-oriented motivation (Nurmi, 1991). In order to set realistic goals, Nuttin (1984) asserted that a plan of action separates actual goals from mere fantasies. Markus and Wurf (1987) stated that the comparison between motives and values and the expectations people have about the future motivates people to set goals. Bandura's (1986) social learning theory defined the nature of humans by their unique cognitive capabilities which enable them to make comparisons between present motives and values with perceptions of the future, and self-regulate behavior through a course of cognitively generated subgoals to reach the future.

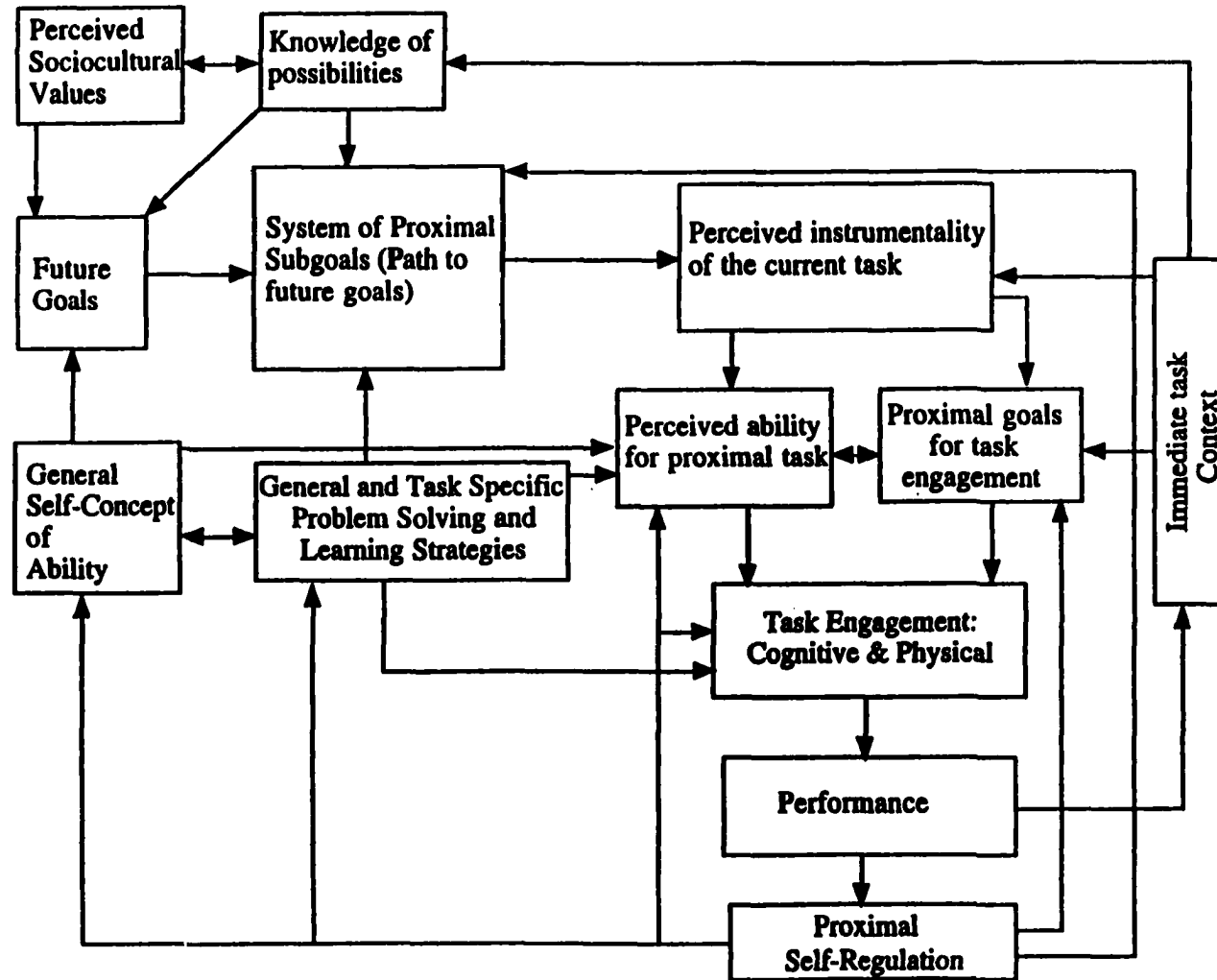
Bandura (1986), as theorists before him, considered orientation toward future goals and outcomes as a major feature of human thinking and acting. People gain an understanding of themselves and the world through direct experience and by observing others. This knowledge is symbolically represented and used to generate courses of action and predict possible future outcomes. However, in order to effectively guide and direct behavior over extended periods of time people must reflect upon past behavior to determine if courses are being effectively followed to reach the future. Bandura (1986) termed the cognitive capability to predict the future as forethought, and stated that forethought was a product of both generative and reflective ideation.

People reflect on their own thoughts and actions and develop cognitive representations of the cause and effect relationships between themselves, others and events. As they progress through courses of action toward the future, they monitor

their ideas about cause and effect relationships and their ability to carry out courses of action. From this information they predict occurrences, judge the adequacy of their thoughts from the results, and accordingly change thoughts and actions to reach the future (Bandura, 1986). These insights are translated into action through the self-regulatory mechanisms of proximal goals and outcome expectancies projected into the future. A number of human capabilities were described by Bandura (1986), the capability to symbolically represent knowledge; the capability to learn vicariously; the capability of forethought; the capability to self-regulate one's behavior through courses of subgoals; and the capability to be self-reflective. These capabilities influence the knowledge that people construct. These unique capabilities shape conceptions, beliefs, perceptions of the self, and the intentions or goals that direct behavior. Cognitive representations of projected future goals set the stage for the development of a plan, or course of action of proximal subgoals which provide standards for monitoring and evaluating present behavior toward future goal attainment (Miller and Brickman, 1997; Bandura, 1986, Lock & Latham, 1984). It is this larger self-regulatory system for the attainment of future goals that Bandura (1986) referred to as essential for successful human functioning.

Miller and Brickman (1997) (Figure 1) have taken this social cognitive approach of a larger self-regulatory system, integrated theories and research on future goals and developed a model depicting the impact of future goals on the self-regulation of present achievement. The model follows concepts and research

Figure 1: The Impact of Future Goals on Task Engagement



presented by Bandura (1986) and applies them to current theories of achievement motivation.

The model depicts future goals as an important incentive for present academic motivation. Future goals are outcomes that students expect to accomplish within their sociocultural context. Through vicarious and direct experience they learn what is important for them to pursue and they begin to formulate possible subgoals which must be accomplished to reach those goals. Students gain knowledge about future goals and possible subgoals from their sociocultural context. Through their own performance and by comparing themselves to others like them they begin to develop a general self-concept of their ability to reach future goals. Students also learn general problem-solving strategies from their sociocultural context which help shape beliefs about the reasons why subgoals will lead to goal accomplishment. In addition to this sociocultural knowledge, the model depicts an interaction with immediate tasks at school that contribute to shaping beliefs about the course of subgoals to reach the future, and contribute to students' perceptions of their likelihood of accomplishing the course of action. As they experience daily activities students continue to use and develop general problem solving and learning strategies to evaluate the course of action and their abilities to complete it. Therefore, expected future outcomes and the course of action to reach them are not only shaped by sociocultural knowledge but also by the students' daily learning experiences at school.

In order for future goals to serve as an incentive for present motivation the

student must perceive that daily classroom tasks are instrumental to the accomplishment of one or more of the subgoals believed necessary to reach the future. Instrumentality of immediate tasks has been found to be critical to motivation and self-regulation (Raynor, 1974; Gjesme', 1983; Brickman, Miller & Roedel, 1997). A system of proximal subgoals leading from the present to the future influences self-evaluative reactions for present behavior. It is through the perception of instrumentality of classroom tasks to subgoals that students' judge their progress toward their future goals. The standards of their subgoals provide the information as to what needs to be met in order to reach the future. They observe, monitor and evaluate their present behavior against knowledge gained from the sociocultural context and from their own past experiences. Based on this information students develop perceptions of what is possible for them to reach in the future. Depending on their evaluation of their present performance on meeting the standards of their subgoals they may either retain or alter immediate classroom goals. Students may alter their course of proximal subgoals, abandoning some, or develop additional future goals and courses of actions.

A more extensive overview of the model will be presented in the next chapter with supporting empirical and theoretical evidence of the role of future goals as incentives for self-regulation of present achievement. The model also represents the aspects of the social context and its relationship to the self in the construction of knowledge.

Related Literature

The research presented in this chapter will follow the sequence of the components of the model presented by Miller & Brickman (1997). As the review of research progresses through the components the research supporting each respective component will be presented. Each will include overviews of different researchers' conceptualizations of specific aspects of the cognitive representation of future goals that they hypothesized might impact present behavior. The knowledge upon which perceptions of future goals and subgoals are based will be approached from a social cognitive perspective. The cognitive and social cognitive approach to problem-solving and planning will be the basis for the discussion of the commitment to future goals and the planning of courses of subgoals. Empirical research will provide support for this investigation on the role of plans for the future on how plans for the future influence motivation.

Future Goals

Future goals are cognitive representations of expected outcomes (Bandura, 1986). The construct of perceptions of the future has been theoretically conceptualized in various ways. Nuttin (1984) asserts that goals are cognitive representations of incentives, as did Kilinger (1977). Bandura (1986) referred to future goals as cognitively anticipated outcomes (Bandura, 1986; Ford, 1992). All of these concepts represent future goals as what individuals believe will satisfy their underlying needs and motives. Nuttin (1968, 1984) and de Volder and Lens (1982)

conceptualized perceptions of the future using the term “future time” perspective. This term conceptualized the perception of events in peoples’ lives as cognitively represented at specific points in time. Events are either presently occurring, have occurred, or have yet to occur. Values, interests and motives for specific future events are products of the cognitive development of means-end structures. Future goals and plans develop based upon the influence of past knowledge and self-perceptions of events. The extension with which a person can project in time is hypothesized to represent the clarity and the number of related events between the past, present and future. The more elaborate and vivid the path, the farther into the future a person can project, thus the more motivated they would be toward the future.

Nuttin (1984), used qualitative methods to develop a motivational scale which included events that people had most often reported as in either the near or distant future. The distance of these events represented the time projected into the future. This measurement of the extent of time was found to be related to various measures of motivation, such as level of performance (Nuttin, 1984) and amount of time spent studying (deVolder & Lens, 1982).

Markus and Nurius (1986) describe the construct of the future as “the possible self.” They extended the cognitive approach of future goals to self-concept and self-schema theory. Their theory stems from research by Astin & Nichols (1964) who proposed that people have life goals that reflect self-concept. Markus and Nurius (1986) see self-concept as represented in self-schemata dealing with the “past self,”

“core self,” “now or working self” and the “future possible self.” People are usually motivated and attempt to accomplish what they picture themselves as doing or being able to accomplish, or they may be motivated to avoid negative self-perceptions. The qualitative work of Markus and Nurius (1986) revealed that people cognitively represent experiences as positive, negative or neutral possibilities, in different domains for “possible future selves.” From their qualitative study they developed a “possible self” questionnaire which asked participants to rate whether a particular possibility represented them now, in the past or in the future. What people reported as anticipated in the future, either positive or negative was found to be related, respectively, to their reports of positive and negative self-perceptions. To examine the contribution of each “self” to motivation they used scales measuring affect, locus of control, esteem and hopelessness. Results indicated that the possible self contributes separately and independently to an individual’s affective and motivational states, self-esteem, and perceived control. Participants for their study were people who were experiencing a present major life crisis. Those who had developed and reported positive possible selves reported a more optimistic outlook for overcoming their present crisis situation. This research supported the idea that cognitive representations of the future influence motivational direction toward the future.

More recently, Miller et al., (1995, 1996) found that perceived possible future consequences or goals influenced self-regulation, cognitive engagement, effort and persistence during present academic tasks. This supported Schutz’s (1994) previous

research which indicated that the future goal of going to college was related to the use of learning strategies and achievement. Miller et al., (1996) described anticipated consequences as future oriented because performance in the present will not, in itself, produce the final consequence. Correlation and multiple regression analyses were used by Miller (et al., 1996) to indicate relationships with and contributions of various future goals to achievement behaviors. Miller et al., (1995) found that different types of future goals influence different levels of self-regulatory strategies used during present classroom work. These quantitative studies contributed convincing evidence of the behavioral impact of future goals in present academic situations.

These various studies and conceptualizations of future goals demonstrate that future goals impact present motivation, and the content of future goals influence levels of self-regulation, however, they do not indicate the knowledge upon which future goals are based or how knowledge influences the commitment necessary for specific future goals to impact present behavior. Social cognitive research illustrates how this knowledge about future goals might be constructed.

Knowledge and Development of Future Goals. Cognitive representations of future goals include knowledge about specific characteristics of future goals, and gain meaning through the interpretation of the perceived causes of events between individuals, others and future goals (Cantor & Kihlstrom, 1987; Scholnick, Friedman & Cocking, 1987). Cognitive representations of future goals include people's perceptions of themselves in the future (Markus & Nurius, 1986). Individuals

construct self-perceptions that describe personal characteristics which shape beliefs about their abilities to reach future goals. These cognitive representations define the future goals which people expect to be able to accomplish within their social context.

Theorists have described these cognitive representations of future goals under concepts such as: life tasks (Cantor & Kihlstrom, 1987); personal concerns (Little, 1987); possible selves (Markus & Nurius, 1986); long-term projects (Nuttin, 1984) and future consequences (Miller, et al., 1996). These types of future goals represent expected outcomes that are self-relevant and self-defining within the social context in which the individual operates (Miller & Brickman, 1997; Cantor & Kihlstrom, 1987). As depicted in the model (Miller & Brickman, 1997), one's sociocultural context is a source of knowledge for developing cognitive representations of future goals, and perceptions of the self. This is similar to Bandura's (1986) social learning theory and Maehr's (1984) model of personal investment.

Social cognitive theorists view human functioning as an interaction between person and environment (Bandura, 1986; Maehr, 1984, Cantor and Kihlstrom, 1987; Eccles & Wigfield, 1995; Wentzel, 1989). Bandura's (1986) social learning theory defined the nature of humans by their capabilities to alter, adapt and fulfill their needs within the social environment. His view of human functioning stresses the interactive relationship between thought and action. People's behavior is driven by cognitively held goals and beliefs that they can guide their actions toward the fulfillment of needs within their social context.

Researchers have suggested that the emergence of these cognitively held future goals are in part determined through the developmental process of socialization (Nurmi, 1991; Trommsdorf, 1983). In Nurmi's (1989a) longitudinal study he used interviews and questionnaires, to investigate how the content of future hopes and fears changed with age through the socialization process. In this respect future goals are culturally transmitted knowledge. Information is probably most typically learned through observation of others (Bandura, 1986) who are seeking or have acquired particular future goals. In Nurmi's (1989a) study he used the amount of knowledge about future hopes and fears as an indicator of "realization." The content and amount of knowledge were determined by using raters who identified the number of related pieces of information the students stated and identified as being in the past, present or future. The amount of knowledge was related to different goals at different ages. As students got older, their knowledge shifted from thinking first and foremost about occupation, education, and then leisure time activities, to, knowledge concerning education, occupations, having families, and leisure time. Cognitive and social cognitive theorists would suggest that this knowledge exists as declarative knowledge about future goals, and changes over time in the socialization process through procedural knowledge. (Cantor & Kihlstrom, 1987; Scholnick & Friedman, 1987 Anderson, 1990).

Cognitive and social cognitive theories describe declarative knowledge as a cognitive representation of "knowing that" something exists (Anderson, 1990). The

social cognitive approach to knowledge about future goals (Cantor & Kihlstrom, 1987; Scholnick & Friedman, 1987; Krietler & Krietler, 1987; Oppenheimer, 1987; Randall, 1987) would suggest that knowledge structures contain specific declarative information about future goals, and the types of people who seek particular future goals. This information may include subject content required to acquire and accomplish future goals and specific responsibilities or skills associated with the future goal. Information regarding people who seek a particular future goal might include person characteristics such as: intelligence, personality and physical attributes needed for a future goal, and the perceived intention's people have for selecting particular future goals (Cantor & Kihlstrom, 1987). Additionally, declarative knowledge might include the age or time those future goals are expected to be accomplished and the physical setting or location. These types of declarative concepts of future goals are transformed and assigned meaning through the interpretive rules held by procedural knowledge structures.

Procedural knowledge refers to the rules for encoding, manipulating, retrieving, and utilizing declarative concepts in the service of interpreting events in the social world (Cantor & Kihlstrom, 1987). People encode, retrieve and use relevant information to transform knowledge to be congruent with what is already known. In reference to future goals, these rules refer to patterns of interpretation used for the construction of meaningful knowledge about future goals. These rules are learned vicariously and through direct interaction with the social environment, and used to

interpret the social environment (Bandura, 1986). Students learn how to categorize people, situations and events for future goals, infer emotional states which indicate intentions and goals of others, evaluate the likability of other people in particular future goal settings, infer dispositions underlying people's behavior and evaluate the causes for accomplishment of future goals (Cantor & Kihlstrom, 1987). It is with the interpretive rules that are cognitively represented in procedural knowledge that students can reflect upon what they know, assign meaning and value, then generate possible future goals for themselves (Bandura, 1986). These cognitive representations of future goals inevitably include perceptions of the self that are congruent with knowledge about future goals.

People describe themselves as having certain personal qualities which would enable them to reach future goals. They categorize themselves as having a particular level of intelligence within specific domains, and certain types of personality and physical characteristics. People cognitively represent themselves as using specific characteristics, with intentions and goals within different situations. Concepts of the self also include a temporal dimension (Markus & Nurius, 1986). Through experience an individual constructs knowledge and builds a running autobiographical record which defines who one is (Cantor & Kihlstrom, 1987). There is not only knowledge about whom one is presently, but whom one has been in the past. The knowledge from these two temporal dimensions enables an individual to reflect upon who one has been, is presently, and generate the possible self in the future (Markus & Nurius, 1986;

Raynor & Entin, (1983).

Procedural knowledge about the self includes reflective rules for making inferences about the self (Cantor & Kihlstrom 1987). People interpret the cause and effect relationships between themselves and social events, which shapes beliefs about abilities and the control they have in fulfilling future goals within the social context.

Markus & Nurius (1986) found that people generally retain and recall more positive attributes about the self than negative. They also found that most people generate more positive futures about themselves than negative, unless cued for possible obstacles that might prevent them from obtaining future goals. However, they found that most people believe they will make positive changes in the future. This indicated that people may be very selective and possibly biased in the encoding and recall of positive experiences to make self-judgements concerning their ability. Future expected outcomes therefore acquire a causal efficacy. Experience and seeing others like them reach particular goals influences the perceptions of the self reaching similar future goals.

Students clearly have their own individual learning histories, each with different opportunities to develop cognitive representations about themselves and what future goals are available for pursuit. In this respect, interpretations of the social world and the self may enhance or constrain perceived availability of future goals. The social cognitive approach suggests that through the socialization process culturally relevant knowledge is transmitted and used to monitor and evaluate the self within the social

context. Cognitive representations of the self and the social context determine which culturally self-defining and self-relevant valued future goals are selected for commitment.

Future Goal Commitment. Miller and Brickman (1997) describe the initial future goal commitment as a decision that is drawn without much consideration for the intricate steps actually involved in reaching the future goal. It may not be feasible to plan an entire course of action in advance because the environment is constantly changing, the goal is ill-defined, or parts of the plan are dependent upon others (Cantor & Kihlstrom, 1987). In these situations people are likely to depend on personal meanings or what “feels right” in the commitment to, and planning of subgoals to reach the future (Phillips, Paziienza & Ferrin, 1984). This perspective is consistent with Tiedeman’s (1967) findings that when individuals seek future directions they must simultaneously act as if one could predict and control the future to make a commitment, while recognizing the predicament that not all outcomes can be foreseen or controlled.

As shown by the model, the commitment to future goals is based on cognitive representations of future goals and general self-concepts of ability. The sociocultural context provides knowledge about possible future goals, and general heuristics to interpret events and the self in the social world. These cognitive representations of future goals, and the self, may be simple or elaborate, adaptive or maladaptive depending on the amount and clarity of declarative knowledge and the types of

interpretive rules used in assigning value and meaning (Cantor and Kihlstrom, 1987).

The elaboration of knowledge about future goals, and the self, influence commitment and motivation toward specific future goals (Cantor & Kihlstrom, 1987; Kelly, 1950; Scholnick, Friedman & Cocking, 1987).

Trommsdorf (1983) found that students who reported furthering education as a primary future goal had elaborate knowledge concerning getting an education and reported little knowledge about specific job opportunities. Students who expected to enter the work force after high school, due to economic reasons, had more knowledge concerning possible job opportunities than how to further their education. These findings suggested that students' have perceptions of what they will be doing in the future, and seek and attend to information about future goals that are expected to fulfill their needs.

Future goal commitment is often based upon others' actions and inferences drawn about what motivated them to pursue a certain goal. Students see others reach future goals and infer how others reached the goal in the social context. In other words, the student has inferred the cause and effect relationships for the occurrence of future goals within their social context. Students cognitively represent future goals and identify that certain personal qualities are necessary to acquire them. They also recognize that people choose future goals because it is valuable to accomplish certain things, such as: to get an education, get a job or make money. The cognitive representations of cause and effect relationships learned within the sociocultural

context and the comparison of the self with similar others' intentions and goals influence the hierarchy of interest, motives and goals which one pursues (Nurmi, 1991).

Cantor & Kihlstrom (1987) suggests that in those domains where students have well-elaborated knowledge about future goals, their general self-concepts of ability are strengthened. Students assess their domain specific self-concepts of ability, based on past experience, and by comparing themselves with others. They compare their abilities to knowledge about what is expected to be encountered in the future. When knowledge about future goals is elaborate, people can accurately evaluate their abilities to reach expected future goals. They expect that their abilities will enable them to alter and adapt events to reach the future. In this case, commitment and motivation are likely to be enhanced. On the other hand, when knowledge is simple, or the cause of events is viewed as uncontrollable, people cannot perceive themselves as effectively reaching the future goal, and commitment and motivation may not be enhanced. The depth and selectivity of knowledge about future goals and the self influences the commitment to specific future goals.

These ideas are supported by Maehr (1984), whose model of personal investment suggests that individuals assess the value of future goals based on past experience and knowledge from their sociocultural context prior to action and commitment. Markus & Nurius (1986) suggest that self-schema influence possible goal commitment through the tendency for people to project positive self-images in

the future. Bandura's (1986) social learning theory suggests that future outcome expectancies based on vicarious learning and self-efficacy beliefs enhance value and prompt goal setting. Cantor and Kihlstrom (1987) suggest that prior to goal commitment people simulate possible outcomes. People compare the possible outcome and test hypotheses with perceptions of themselves in similar situations, or by comparing themselves to others in similar situations.

Students learn through socialization what is of value to pursue. Cantor and Kihlstrom (1987) and Scholnick and Friedman (1987) point out that individuals' perceptions rarely reflect reality. They state that students' interpretations of reality are based on their perceptions of their ability as well as what they observe as socially standard, routine and appropriate to pursue in the future. Nurmi (1989a; 1991, 1992) and Trommsdorf (1983) view commitment to future goals as a social developmental process. They view the comparison of the self to what is appropriate in the social milieu as central to the adoption of goals. Students seek to be like others, thus aligning the self with social norms. Ryan et al., (1991, 1992) suggest that goals are internalized through the identification process. They see perceptions of "the self" as central to commitment to goals. Identification with personal characteristics, situations and events associated with future goals determines the level of commitment and motivation toward the pursuit of future goals. Both of these social cognitive approaches recognize that culturally determined future goals may begin as externally controlled by social norms and standards, but eventually become internalized through

the elaboration of social knowledge about future goals and general self-concepts of ability. As Miller and Brickman (1997) have suggested, initial commitment is based on general knowledge and general heuristics of interpretation of the social world. As knowledge about future goals is elaborated, self-concepts of ability are strengthened and commitment and motivation are enhanced. This initial commitment influences individuals to begin to consider how they are going to reach the future goal, or as Bandura (1986) stated, “generate a course of action.”

Process of Planning

The model depicts the cognitive representation of future goals as serving as a catalyst for the development of a system of proximal subgoals (Miller & Brickman, 1997). Socialization provides knowledge about which subgoals might serve as possible courses of action, however, individuals evaluate which subgoals they believe they can successfully perform to reach their future goals. They must compare the possible subgoals to their past and present knowledge about themselves, others and events, then determine what steps and standards must be met to reach the future. People must cognitively create the steps that will lessen the discrepancy between the present and the future. This is cognitively represented as a plan, a diagram or map based upon spatial and causal representations that indicate the relationships between the past, present and future (Scholnick & Friedman, 1987). The plan includes the definition of the future goal and related subgoals. Planning is an on-going process whereby the future goal and subgoals gain relevance and clarity through acquisition

and the construction of knowledge. Plans may be refined or modified by the daily observation of others and direct experiences.

As social and self knowledge are acquired people develop cognitive representations that reflect their understanding of how, when and where individuals and events operate (Cantor & Kihlstrom, 1987). Nuttin's (1984) cognitive approach to the development of perceptions of the future stated that as people gain knowledge, means-ends structures develop to help determine how needs will be met. As they progress through experiences new means-end structures can produce new strategies for accomplishing goals.

Social cognitive approaches to the development of plans state that by comparing others' outcomes with ones' own experiences helps shape peoples' plans. People infer the cause of the outcomes of others' actions, and they anticipate what their emotional response will be to similar outcomes (Cantor & Kihlstrom, 1987; Kelly, 1955). These cognitive representations help shape the belief that stimulates planning. People develop beliefs about themselves within the social context based in part on what they see others experience. The belief that they, like others, can manipulate and transform the environment, or plan and carry out effective means to meet self-relevant and self-defining future goals begins the process of planning (Krietler & Krietler, 1987; Oppenheimer, 1987; Cantor & Kihlstrom, 1987; Miller & Brickman, 1997).

Social norms are combined with personal value to decide whether a particular

situation warrants planning. Based upon personal past, present and future knowledge individuals consider whether they should, or need to plan. They may observe whether other people, and peers in particular, plan for particular goals (Kreitler & Kreitler, 1987); however, they also use personal knowledge about their abilities. If the situation warrants planning, they draw upon their knowledge, organize resources and construct a cognitive representation of the problem space in which planning will take place. This personal representation of the problem space may enhance or constrain commitment to future goals and the motivation to generate plans. Individuals develop beliefs about whether others and events in the environment can be manipulated to produce conditions more conducive to goal attainment, or whether conditions will present constraints.

Raynor & Entin (1983) manipulated subgoal characteristics to investigate their impact on motivation. Raynor (et al., 1981, 1983) manipulated path characteristics believed to be used to evaluate whether the self was perceived as striving or not striving for the future. The path characteristics manipulated included: number of perceived steps, time to complete steps, difficulty level, value of the outcome, sequence difficulty, value of one step to moving on in the sequence and the number of steps in the path remaining. The manipulations of these path characteristics were found to influence the amount of enthusiasm or nervousness (indicator of motivation) reported by the student. This research indicated that both the perception of a path of contingent subgoals for reaching the future and it's characteristics were evaluated in

reference to self-abilities.

Raynor (et. al., 1974, 1981, 1983) used the term “future orientation” to conceptualize his construct of the future. The past provides information as to whom one has become. This knowledge is used to represent perceptions of striving for whom one hopes to become in the future. The congruencies between these representations were theorized to influence perceptions of a contingency between the past, present and future and exist as cognitive representations of opportunities of a path or perceived steps to the future. When information is perceived as congruent between specific past situations and perceived future opportunities people can build a contingent plan that they believe will be beneficial to reaching their future goals. Researchers (Oppenheimer, 1987; Dreher & Oerter, 1987) have found that children who believe that planning is beneficial in particular situations and have confidence in their ability to carry out a plan are more likely to engage in planning than children who do not have these beliefs.

Kreitler & Kreitler (1987) found that in addition to general beliefs about the benefits of planning, a number of other beliefs were related to the complexity of planning. Kreitler & Kreitler (1987) found that when students could express personal goals, could describe characteristics about themselves, state cause and effect relationships or rules for events, and could describe others in events, their planning was more complex. Kreitler & Kreitler (1987) found these students’ plans to be characterized by more alternative solutions, more if-then statements, more questions

seeking information, more beliefs about events while stating plans, and included more steps in the planning process. These researchers concluded from this study that planning is related to the ability to classify, think causally, think about functions and purposes of events, identify sequential ordering of events, identify location and temporal setting, identify major characteristics of events, and to the ability to consider possible alternatives while rejecting others. These cognitive capabilities help ensure a realistic approach that guarantees the salience of a set of beliefs that motivate planning. These research studies (Kreitler & Kreitler, 1987; Oppenheimer, 1987; Dreher & Oerter, 1987, Raynor, et. al., 1981, 1983) support Bandura's (1986) concept that specific cognitive abilities and social knowledge influence planning.

Kreitler and Kreitler (1987) also investigated the influence of perceived attributional relationships (internal/external), positive and negative affect, and amount of experience in similar situations on planning. They found that all of these factors influenced the meaning assigned to situations, which in turn influenced the types of subgoals planned. When individuals were asked to solve social problems in which the individuals' most frequently applied content was present, where their attributional beliefs indicated confidence and control, individuals' plans were more complex. Individuals were also found to hierarchically rank the four dimensions of content, causal factors, affect and similarity of previous events by value in different types of situations. This supports Nuttin's (1984), Cantor & Kihlstrom, (1987), Ford's (1992) and Kelly's (1955) theories that people are motivated to seek and fulfill needs by

hierarchically ranked importance. These studies emphasized the role of meaningfulness and beliefs in the process of planning. Meaningfulness and beliefs are shaped through social experiences. Personal meaning and beliefs influence the types of goals set and the planning of subgoals in specific situations.

As people gain experience in specific situations, directly and vicariously, they gain knowledge and confidence in their ability to reach future goals. Bandura (1986) places self-efficacy, one's confidence in one's ability to carry out a course of action, as a central reflective thought influencing action toward future goals. Students can reflect upon what they know about subgoals, infer causal relationships, and make judgements of ability for subgoal accomplishment. As students attempt using strategies to accomplish their goals they experience success and failure, and associated emotional responses. Students will continue to use strategies that help ensure similar positive experiences or enable them to avoid negative experiences. Through these experiences students develop preferences for certain situations and strategies. They may become quite expert in using certain strategies in specific situations and become very confident in planning and carrying out plans in those situations or content domains (Cantor & Kihlstrom, 1987). Nurmi (1989a, 1991, 1993) and Trommsdorf (1983) present a similar idea. They suggested that as students interact in their social context they explore and attempt strategies, and use socially relevant feedback to determine whether their strategies are working, and if necessary alter their course of action.

From a social cognitive view, with knowledge elaboration people can commit to goals because effective courses of subgoals can be inferred from others' experiences, and from one's own experiences. This suggests the individuals develop a course of action from both vicarious experience and their own direct experiences. This gives the individual two sources from which to effectively monitor and judge their own abilities to reach the future.

The Role of Instrumentality in the Self-Regulatory Process

An important aspect of the Miller and Brickman (1997) model is the role played by "perceived instrumentality." Perceived instrumentality refers to the extent to which performance on present tasks is perceived as being instrumental to the ultimate attainment of a valued future goal. Perceptions of instrumentality are believed to be important because such perceptions are thought to connect the value of the future goal to the present tasks, thus providing incentive value for the present task. If there are no such perceptions connecting the present to the future the incentive for performing the present task must come from the anticipated immediate consequences of performance. Other researchers and theorists have noted the importance of perceived instrumentality.

Gjesme (1983) hypothesized that needs and values become aroused when the present task is viewed as instrumental to something perceived of value in the future. Gjesme (1983) used the term future time orientation to describe individuals' orientations toward the future. Like Raynor (1974) and Markus & Nurius, (1986), he

considered future time orientation as a fairly stable personality characteristic that develops across experiences. Perceived instrumentality (relatedness of events along a path) across experiences is critical in the development of one's future time orientation. He used a measure of the delay of gratification to determine the development of positive and negative future time orientation. If students had a clear path of related events, they could delay immediate gratification because they knew if they followed their plan they would receive a more valued reward. In his research he manipulated near and distant positive and negative events and hypothesized that perceived instrumentality (relatedness of events) to future goals would bring the future goal closer in perceived proximity. This situation would influence the level of reported anxiety, depending on whether one had a positive or negative future time orientation. Students who had a positive future time orientation reported less anxiety than students with a negative future time orientation. Additionally, Gjesme' (1987) found that when positive future time oriented students perceived the present task to be instrumental to the future goal they were more likely to delay gratification than negatively oriented students.

Raynor's (1974) research presented another way of investigating the impact of instrumentality on learning. He found that students who held a successful orientation and perceived instrumentality of the present task had higher GPA's than those who were failure oriented. Additionally, he found that even if students were failure oriented, if they perceived the instrumentality of school tasks they made better grades

than failure oriented students who did not perceive instrumentality.

In another study of the impact of instrumentality, deVolder and Lens (1982) assessed high school students' perceptions of instrumentality for studying hard, their persistence and their achievement. Their findings indicated that high achievers perceived greater instrumental value in studying for distant and open-ended present goals than did low achievers. Similarly, high persisters had higher instrumental value scores for their distant and present goals than did low persisters.

Brickman, Miller and Roedel's (1997) research followed Gjesme' (1987) and Raynor's (1974) concept of perceived instrumentality. Brickman's (et al., 1997) research was based on the hypothesis that perceived instrumentality between future goals and school tasks enhances cognitive engagement. This study asked students to rate the importance of different types of future goals on a survey developed primarily on Nurmi's (1989a) qualitative work. Students were also asked to rate the importance of their present math performance to reaching specific future goals. They used scales (Miller, et. al., 1995, 1996) measuring self-regulation, cognitive engagement, effort and persistence. Their major findings indicated that perceived instrumentality was a better indicator of cognitive engagement than the importance rating of the future goal itself.

Research studies devoted to the investigations of future goals have indicated that more distant goals only have incentive value for proximal subgoals when there is a perceived relationship between current performance and the future goal (Nuttin, 1984;

Gjesme, 1983; Raynor & Entin, 1982; Raynor, 1974; Miller, et al., 1996; Brickman, Miller & Roedel, 1997). When students can perceive that their present performance will help them accomplish a subgoal, the present incentive value of the attainment of the future goal is also enhanced.

As students progress through the socialization of school, they continuously acquire information on which to base their self-perceptions of social and academic ability. These perceptions may be positive or negative and can be reinforced by feedback from teachers, peers and family. Critical to the meaningfulness and value of self-perceptions and others' feedback is the students' perception of progress toward subgoal accomplishment and possible future goal attainment. Critical to this perception of progress is the perceived relationship of instrumentality of the present task. It is the performance on instrumental tasks that students use to judge their abilities, and determine whether progress is being made toward the accomplishment of subgoals for future goal attainment (Miller & Brickman, 1997). Therefore, students' perceptions of ability for present tasks and immediate incentives for task completion influence goals selected for present classroom work.

As shown in the model, instrumentality precedes the types of goals selected for immediate tasks. Although knowledge about future goals is influenced by the sociocultural context, primarily by significant caretakers, such as parents, goals for immediate tasks at school are influenced by contextual factors at school. Sociocultural and school context factors interact and influence social and academic perceptions of

instrumentality of present tasks. School context factors influencing instrumentality and present goal choices include, but are not limited to: the teacher/student situation, including performance expectancies, instructional evaluation and design, and peers (Ames & Archer, 1988; Wilks, 1985; Eccles, 1983; Steinberg, Dornbusch & Brown, 1992). Goal selection for immediate tasks is a reflection of what is viewed as instrumental to the accomplishment of subgoals for future goal attainment. The subgoal may be either social or academic. Parents, teachers and peers expect students to pace themselves through both social and academic norms in preparation for adulthood (Havighurst, 1974). There are a variety of reasons, or goals, both short and long term ones, and social and academic ones for which students engage in present academic behaviors. There have been numerous research studies investigating the multiple social and academic classroom goals available for present classroom task engagement (Wentzel, 1989, 1991, 1994; Fyans & Maehr, 1990; Dodge, Asher, Parkhurst, 1990; Miller et al., 1995, 1996). These goal choices have been found to influence the subsequent metacognitive strategies executed for present learning.

Research on academic orientation (Dweck & Leggett, 1988; Maehr, 1984; Ames & Ames, 1984) has shown the impact of learning and performance goals on achievement. Learning goals represent the student as motivated to learn in order to become more competent. Learning goal orientation is positively related to self-regulation, deep processing, effort and persistence, and achievement. Performance goals represent the student as working to look good, or avoid looking bad. When

self-efficacy is high, performance goals can aid in self-regulation, cognitive engagement, and achievement: however, low self-efficacy and performance goals can have a negative impact on cognitive engagement and achievement.

In addition to learning and performance goals, students have been found to do their school work in order to comply, be socially responsible, and to meet social affiliation needs (Wentzel, 1991, 1994; Ford, 1992; Urdan and Maehr, 1995; Miller, et al., 1995, 1996). Multiple classroom goals for immediate tasks were found by Wentzel (1989) to be ranked differently among different achievement level groups. She found that high academically achieving students placed learning for competence as a more important immediate goal than social affiliation goals at school. Lower achieving students placed more importance on the more immediate goal of gaining peer affiliation.

These findings suggest that, students' achievement is influenced by the type of goal chosen for the immediate task. Similar findings concerning pleasing others, such as parents and teachers, school recognition and staying eligible for extra curricular activities were found by Miller, et al., (1995, 1996). These immediate more social task goals were found to make varying contributions to self-regulation, cognitive engagement and achievement. These research findings have indicated that students perceive various goals in the classroom. Wentzel's (1989) and Miller's et. al., (1995 1996) research indicated that social and academic goals guide choice of immediate tasks at school. These various goals influence levels of self-regulation, cognitive

engagement and achievement.

Students who have a future goal of furthering their education may view the subgoal of school as being successfully accomplished by choosing a learning goal for immediate tasks to ensure becoming more competent in specific subjects. Miller et al., (1996, 1997) and Schutz (1994) found that students' future goal of going to college was positively related to the students' level of cognitive engagement in classroom tasks. Social responsibility goals, such as pleasing the teacher have also been found related to the level of cognitive engagement in classroom tasks (Miller, et al., 1996). This indicated that some students may view pleasing others as instrumental to accomplishing a goal in the more distant future.

Other students may place more importance on the future goal of getting a job after high school, or having a family. Sundberg, Poole & Tyler (1983) found that future goals were common across different cultures, however, they varied in ratings of importance across gender. In the social context of school, developing relationships may be important to show that one can take responsibility in the workplace, or developing relationships may be an important subgoal for the future goal of having a family. Still other students may have very unclear knowledge about future goals and fail to have proximal subgoals for school accomplishment. Thus, school work is not perceived as instrumental to future goal attainment. These students are left to determine if the immediate task incentive is valuable enough to engage in the present classroom task.

Through socialization students acquire perceptions of relationships between subgoal accomplishment and future goal attainment, this enhances commitment. The future goals become valued through socialization and general self-concepts of ability to accomplish the path of subgoals. The student learns what subgoals are necessary to accomplish the future goal. As students experience school tasks, they develop domain specific perceptions of ability, and choose goals which are congruent with those abilities. The learning strategies for social or academic domains may become dominant within the student's repertoire of preferred behaviors for school. Through continuous successful experiences, knowledge becomes elaborated, and plans to reach specific future goals more vivid.

Nurmi's research (1989a, 1990, 1991) indicated that students have multiple future goals they pursue. Additionally, Trommsdorf's (1983), Wentzel's (1989) and Miller's (et al., 1996) research suggested that the multiple goals perceived available in school tasks might be related to their multiple future goals. This idea suggests that students might coordinate immediate task goals according to the importance of the perceived instrumentally to more distant occupational and family goals, as well as future educational goals. Depending on the elaboration of knowledge about each of the future goals and the subgoals students might vary in their self-regulation. Students with fairly well elaborated knowledge for a particular future goal may be able to delay gratification of immediate needs and possibly meet subgoals of important future goals through immediate task performance (Gjesme, 1983; Mischel, Shoda, & Peake, 1988;

Mischel & Shoda, 1995; Bembenutty & Karabenick, 1997).

Another way in which elaborated knowledge may enhance self-regulation is through the use of volition strategies. Elaboration of knowledge enhances the likelihood of commitment, suggesting that the future goal is meaningful. After the decision of commitment students develop volition strategies to aid in managing their behavior through a course of subgoals toward specific meaningful future goals (Kuhl, 1987; Corno, 1993). Volition strategies over a course of subgoals help develop a growth in responsibility and dependability toward the attainment of meaningful future goals (Kuhl, 1987; Corno, 1993). Delay of gratification and volitional strategies both may be viewed as possibly contributing to the self-regulation of goal attainment.

Planning and Educational Research: Integrating Remarks

When students are presented with classroom tasks, Kreitler & Kreitler's (1987) work suggests that beliefs about planning itself, content, causal relationships, affective response and the recency of similar situations all stimulate planning. A stimulus in the immediate setting ranging from a sensory cue, a word, a picture, a total situation, or past experience may cue the need to plan. When immediate tasks hold information that is congruent with the planning situation, instrumentality is more likely perceived. Students, who have preference for a specific content, will engage in those tasks involving that content, especially when they perceive their engagement as self-controlled, as producing positive affect, and as leading to subgoal accomplishment for future goal attainment. Instrumentality is critical to immediate task engagement

(Brickman, Miller & Roedel, 1997). Elaboration of knowledge of future goals and their subgoals through socialization and school experience influences the likelihood of perceptions of instrumentality. Instrumentality, in turn, influences the subsequent choice of immediate task goals and related learning strategies for the immediate task.

In the social context of school there are multiple goals which are available for pursuit (Maehr, 1984; Wentzel, 1989; Miller et al., 1996). The student must decide which goal or combination of multiple goals in the present situation will be the most instrumental for subgoal attainment. Additionally, the student must consider the external values and incentives of the present school context and evaluate whether contextual factors will enhance or constrain personal goal-guided behaviors. There have been various research studies conducted to investigate the impact of contextual factors that might influence and interact with personal factors to impact goal choice and, thus motivation.

Ames & Archer (1988) found that the type of instruction, mastery and norm referenced, influenced student intent in present academic situations. Eccles et al., (1983, 1995) and colleagues found that teacher expectancy also influences present performance. Wentzel (1994) and Miller et al., (1996) found social responsibility and pleasing others to be an important reason for some students to do their school work. Ogbu (1992) and Steinberg, Dornbusch & Brown (1992) have found that peer group acceptance influences school engagement. These immediate goals may vary in their importance to one or more courses of subgoals for future goal attainment. The

student must make choices concerning priorities and attentional focuses to coordinate the sequence of multiple classroom goals toward the accomplishment of subgoals. In the future goal planning situation, clear paths of subgoals and their hierarchical importance may make it difficult to determine. Students are expected to coordinate social and academic goals to reach the future, which of these are the most important to pursue in the present situation depends on the knowledge used to devise plan.

The Impact of Faulty Planning

At the onset of this paper it was stated that “knowledge upon which future expectancies are based plays an important role in development of future motivation” (Nurmi, 1991). The literature presented thus far indicates that the opportunities that students have to acquire academic and social knowledge shape their expectancies for the future. The extent to which meaningful knowledge is elaborated determines students’ plans. From the social cognitive perspective plans were investigated by their complexity.

When knowledge about future goals and subgoals is absent or unclear (Cantor & Kihlstrom, 1987) or attribution relationships are maladaptive (Weiner, 1984, 1994) plans are ill-defined. When plans are ill-defined, the lack of knowledge or misrepresented knowledge may prevent the perception of the opportunity to plan, and prevent conducting an effective systematic search for solutions and alternatives in immediate tasks. Phillips, Paziienza & Ferrin (1984) found that when students lack knowledge to appropriately define their plans, they make impulsive decisions and fail

to plan simply because the act of planning is believed to require more effort than making mistakes. The student's past efforts may have resulted in similar outcomes whether they exerted effort or not. These students may be likely to take the shortest route, or the route that requires the least amount of effort.

This suggests that with ill-defined plans the student may make impulsive decisions when presented with classroom tasks. When plans are ill-defined the instrumentality or meaningfulness of present tasks may not easily be perceived. This leaves the student without the critical component of instrumentality in motivating them to select goals in the immediate setting. Ultimately, the student is left to make decisions for the present task based on what "feels right" or an impulsive decision as to why they should, or should not engage in the present task.

Failure to plan may also be the result of attributions that lead the student to believe that planning will not be beneficial (Scholnick & Friedman, 1987). In the case of maladaptive attributions, perceived causes may have been produced that make student more likely to make impulsive decisions for present tasks (Heppner, 1978; Harren, 1979). Students who make impulsive decisions in ill-defined problem situations were found to report avoidance of both present problems and previous errors in similar problem solving situations. Phillips, Pazienza and Ferrin (1984) found that individuals who deny responsibility for their choices, because of perceived uncontrollability in situations, will comply with authority figures and have less confidence in their abilities in problem situations. This supports Weiner's (1984,

1994) attribution theory, which states that external attributions may be characteristic of individuals who do not appraise their problem solving in effective ways. However, Phillips, et al., (1984) found some individuals who rely on authority figures for assistance may perceive and use expert assistance as a source of solutions. This supports Miller et al., (1996) and Wentzel's (1994) research that found that students may do their school work for social responsibility. These results combined with the information from the Phillips, et al., (1984) studies suggest that the student who does not have high perceptions of ability may perceive that complying with authority figures, and being perceived as responsible may be the best means for subgoal accomplishment.

Another line of thought regarding failure to plan and execute strategies was presented by Kreidler and Kreidler (1987) and Cantor and Kihlstrom (1987). There may be gaps in knowledge that prevent the student from planning effectively, however, it is possible for knowledge to be complete but the lack of meaningfulness of the content prevents planning. The student may see that planning will result in future goal attainment, however, lack of meaningfulness or value of the future goal inhibits pursuit. As an example, knowledge may be elaborate, however, there is simply not any desire to pursue the goal. This may be due to a devaluing of a future goal within the social context, or the individual simply does not have an interest in the content of the future goal. In this case, elaboration allows effective planning, however, lack of meaningfulness inhibits goal pursuit.

Summary

As depicted in the Miller and Brickman (1997) model, the student uses culturally transmitted knowledge and general heuristics to interpret the social world and define the self within the social context. This information is used to build cognitive representations of possible future goals and general self-concepts of ability. Based on these cognitive representations of the social world and the self, the student is in a position to generate a possible course of subgoals to the future. The subgoals selected, their causal representations, and the clarity with which they are perceived influences the level of perceived instrumentality of the present task, which in turn sets in motion the self-regulation mechanisms that influence present achievement. The choice of a goal in the present situation reflects what the student perceives as necessary for the immediate task, and to accomplish subgoals for the attainment of future goals.

Miller and Brickman's (1997) model suggests that present behavior is impacted by the value of the future goal which adds to the incentive for subgoal accomplishment and continued pursuit when school tasks are perceived as instrumental. The plans, which include the cognitive representation of future goals and related subgoals are essential to the likelihood of perceived instrumentality and the subsequent self-regulation of present achievement. Scholnick & Friedman (1987) describes the plans people have as the expression of goal-directed behavior. Therefore, from their perspective, examining plans of students provides a window into the nature of

cognitive representation, and the possibility of a more thorough understanding of achievement motivation.

Research Purpose and Questions

Purpose Statement

The purpose of this study was to describe the plans students' have for the future, some of the social and contextual factors that lead to their development, and to explore how plans might be related to academic achievement. Planning for the future motivates everyday behavior (Bandura, 1986). The motivation of everyday behavior, in part, relies on the cognitive process of planning. A plan includes the representation of future goals, and a cognitive "diagram" or "map" of subgoals to reach the future (Scholnick & Friedman, 1987). Plans for the future are shaped by spatial and causal knowledge structures, conceptions, beliefs, perceptions of the self, and the intentions and goals that direct behavior. Plans link the present to the future. They are cognitive representations of how, when and where future goals and subgoals will be reached (Kreitler & Kreitler, 1987; De Lisi, 1987). These cognitive representations influence motivation, and self-regulation in the present and thus, future goal attainment (Bandura, 1986; De Lisi, 1987). Through the descriptions of plans and the exploration of relationships of plans to present achievement we might better understand and explain how future goals develop and guide academic achievement.

Research Questions

The research guiding this study suggested that future goals impact present

achievement motivation. Research indicated that future goals gain incentive value through the generation of a system of subgoals, and through the perceived instrumentality of the present task to subgoal accomplishment motivation toward achievement is enhanced. However, the knowledge upon which commitment and students' plans for the future develop has yet to be investigated. The following questions guided the research in this study.

1. How do students represent knowledge in their plans for the future? What knowledge about future goals does the student hold? What knowledge about courses of subgoals does the student hold? What goals do students choose for present classroom tasks? Does the student perceive any barriers to future goal accomplishment through present classroom work or subgoal accomplishment? Where, or from whom, did they acquire the knowledge about future goals and the subgoals to reach them?

2. How might plans be related to achievement? How are future goals and subgoals (plans) related to self-regulation, cognitive engagement and achievement? How are specific future goals and subgoals related to self-regulation, cognitive engagement and achievement? How might meaningfulness and complexity impact self-regulation, cognitive engagement and achievement?

3. Do these data fit the theoretical model presented by Miller & Brickman (1997)? If so, at what points in the model are discrepancies found?

Context and Significance of Study

Public schools are universal social institutions in which students are expected to learn, both socially and academically. Acquiring an education is considered a major factor that influences future accomplishments. The participants for this study were students who chose an alternative to a traditional public school education. These students were experiencing social and academic factors which research has shown to

be related to less than adequate social and academic success in public schools. The U.S. Department of Education (1996) has recognized these factors to include: low socioeconomic status, juvenile delinquency, low educational level of parents, less involvement of parents with their child at school, and high absenteeism. Students who are experiencing any one or more of these factors and are identified by school officials as socially or academically failing are given a personal choice to attend an alternative school supported by grants awarded under the Goals 2000: Educate America Act (1996). The identification of the students' failures within the traditional school context does not necessarily mean that the students lack academic potential, or lack the potential to develop personal social skills to succeed at a traditional or alternative school. Nor does this identification indicate that their families' poverty level, parents level of education and involvement at school necessarily prevents school success or limits their capabilities to develop perceptions of the future, or commit to and plan for future goals. Research (Sundberg, Poole & Tyler, 1983) has shown that students can and do overcome these social barriers even though they have been repeatedly found to be related to low school achievement.

The selection of participants for this study was guided by the intrinsic interest that these unique cases lend to the understanding of the knowledge upon which future goals and plans are based. This is a descriptive and an exploratory study to investigate the knowledge these particular students hold regarding plans for their future, and how their plans might be related to their academic achievement. Average or high achieving

students might have knowledge representing all components of the theoretical model and we could find the model functioning as predicted. This study attempted using students from a unique population to gain a better understanding of the knowledge that was either absent or present, and how that knowledge influenced the development of future goals and the planning process.

This study begins with an in-depth description of three individual cases. Then I will report the knowledge these alternative school students used to build cognitive representations of future goals and the plans they devised to reach them. Stake (1994) described this type of study as an intrinsic case study used to gain knowledge about individuals.

For the second research question I will report the relationship between the students' plans and their academic achievement. Additionally, through a cross-case analysis, I will report on the adequacy of the Miller and Brickman (1997) model.

Limitations of Study

The present study does not attempt to draw conclusive results. The case study research was designed to provide a personal account of a phenomenon. This allows an in-depth inquiry to collect and analyze data that would not necessarily be available through experimental or survey methodological approaches. Although most qualitative research works from grounded theory, this case study uses theoretical frameworks and propositions (Yin, 1984, 1994; Borg & Gall, 1989). In this situation the research participants selected as sources of data collection can influence the

reliability and validity of the study. Participants may or may not have answered truthfully to open-ended questions or prompts directed at collecting more specific knowledge about their future plans and goals. This study asked students to provide information about their future goals and the beliefs that they have about how they will reach those goals. The population from which the participants were selected represents a unique population that has failed either socially or academically in the public school system. This may have limited their willingness to share information. Participants were also residents of a small rural community. This regional aspect may have limited the knowledge about future goals and plans compared to students who might reside in a large city. The methods described in the next chapter were selected for this study in an attempt to allow for limitations. Selecting appropriate methods helped ensure that as the data emerged within individual cases that the data could be used to explore possible relationships between plans and achievement motivation, and, that as the data emerged I could determine whether the data supported, or did not support the theoretical model.

Researcher Bias

My professional counseling experience with delinquent youth no doubt shaped my goals to return to complete a Ph.D. in educational psychology. The impact of the particular construct of this investigation, perceptions of the future, was a phenomenon I witnessed repeatedly in my field experience. I worked with students who exhibited, and sometimes completed self-destructive behavior. An unbelievable realization for

me was that these students did not have hope for a positive future, socially or academically. Frequently, these students not only didn't expect to reach a positive future, they didn't expect to live past the age of 25.

The youth I worked with had very strong ideas about how life should be. Social norms concerning family and education were often evaluated as unfair. These youth had specific perceptions of how families and educational experiences should be. The reasons for them perceiving their families and their educational experiences as not functioning as the "average" American family and student were numerous. Reasons ranged everywhere from cultural beliefs to language barriers, to physical and emotional abuse to drug and alcohol abuse. These reasons produced experiences that influenced their hope for successfully completing an education and changing the course of their life. I never professionally worked with a child who wanted to fail in school, or a parent who desired for their child to have less of an opportunity than they had for an education that would improve their child's life. I found that parents and children were willing to strive together toward accomplishing an education and learning how to be successful and happy.

To add to the meaningfulness and bias of my investigation of this construct I believe this phenomenon to be universal, as theory predicts. A vacation to a third world country, visiting with youth, reinforced my belief that perceptions of the future impact the value of education and the motivation toward daily school accomplishment. Researching this third world country's educational system, upon my return, I found

that obstacles and a lack of need to pursue educational opportunities were very visible. Historically, ninety-five percent of the population was unskilled or semi-skilled. Textbooks and tests to move past the sixth grade were not in this population's native language; school expenses, such as texts, must be incurred by the family and students sometimes have to cross difficult terrain to get to school. Daily attendance of students was a primary concern for the Ministry of Education. Research in this third world country is currently directed toward a restructuring of education to improve educational opportunities. In regard to the literature presented these students perceived obstacles, or did not have the knowledge to perceive education's value to the future. They abandoned educational goals based upon perceived obstacles and their lack of perceptions of possible futures.

I have tried to be aware of my bias in finding support for this construct. I consciously selected methodology to hold myself accountable. In the presentation of the case study data I have used almost the entirety of actual responses of the participants so that readers may draw their conclusions concerning the methods used for reliability and validity of the data, the inferences made and the conclusions drawn.

Chapter II

METHODS

This investigation asked questions about how students represent knowledge and their plans for the future, and it explored how and why these knowledge structures might impact present behavior. Research that asks questions about “how” and “why” a phenomenon is occurring lends itself well to the use of a case study strategy (Yin, 1984, 1994; Borg & Gall, 1989). Yin’s (1984, 1994) definition of the case study strategy includes technical features that critically distinguish case studies from other strategies. The definition is as follows:

A case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (p.23)

This study used multiple sources of converging evidence to investigate the phenomenon of the planning of future goals within the students’ social context and the alternative school setting.

Case study strategies are appropriate, especially when many more variables of interest might be expected than originally anticipated (Yin, 1984, 1994). The review of research for this study suggested a complex interaction between the environment and the student. Each student having his or her own history presented the possibility of many combinations of interacting variables shaping the knowledge of future goals and plans. I wished to include any newly discovered variables that appeared to

influence the specific cases. Case study research is appropriate when data collected includes personal factors and environmental influences, and the boundaries between the two are not clearly evident (Yin, 1984, 1994). In the proposed study the contextual conditions of the school, personal factors of the student's past history within school, family or home life, and the current planning for the future, respectively, cannot, or were not controlled. The case study approach to this investigation help ensure that relevant data, as they emerge, included unanticipated variables that would be pertinent to the acquisition of knowledge and the subjective meaningfulness that shape these students' plans. In addition to unanticipated variables, this research used propositions derived from a theoretical model. This enabled the development of a research design which helped establish reliability and validity of conclusions.

Case Study Research Design

Yin's (1984, 1994) definition of the case study strategy implies the possibility of a high degree of complexity between context and the individual. The process of case study research design is guided by the types of questions asked and by the theoretical propositions that link the empirical data to the questions and conclusions of the study. Yin (1984, 1994) stated that a logical chain of evidence is more than just the steps or procedures that the case study will follow. He stated that a logical chain of evidence provides the "theory" of what is being studied and links the research data to the theoretical propositions. As Yin (1984, 1994) suggested the theoretical propositions of this study did indicate the information that was needed to address the

question, and guided the selection of sources from which data was collected, when it was collected and analyzed. Yin (1994, 1994) further stated that a logical chain of evidence helps to control bias by linking the data to the questions and conclusions. This logic of design help provide reliability and validity, or as Yin (1984, 1994) states, more convincing conclusions.

Research design components included: the types of questions asked, the identification of the unit of analysis, the theoretical propositions, linking the theoretical propositions to the data, and the criteria for analysis and interpretation. By following this sequence of these design components I identified the most appropriate method, selected the most appropriate participants, identified the unit of analysis, and the data sources and the procedures which would provide the most relevant data (Cantor & Kilhstrom, 1987; Eisenhardt & Berko, 1989; Yin, 1984, 1994).

Selection of the Case and the Unit of Analysis

The first research question for this study: “How do students cognitively represent plans for the future?” indicated a case study approach and identified the student as the unit of analysis. The descriptive phase of this research took an intrinsic approach (Stake, 1994). It was an inquiry undertaken because I wanted a better understanding of these particular cases. The social and academic factors by which students were identified by school faculty, and offered the choice of an alternative means to their education made these types of students unique. These students had been identified as experiencing problems that had hindered them from adapting and

learning socially and academically in a traditional public school setting. Due to the present social and academic factors that these students encountered, I expected that their knowledge upon which they built perceptions of the future and devised plans, would make them unique cases.

The focus for the first research question was the specific content or type of future goals, subgoals, courses of subgoals, what they perceived as obstacles and their perceptions of ability in accomplishing their future goals. Literature suggested that where or from whom they acquired their knowledge would influence the content and types of future goals and plans. The knowledge the student acquired was expected to be used in shaping and developing cognitive representations of plans for the future. This knowledge was expected to be derived from the events of the past, present and projected future within both the sociocultural and school contexts.

In order to present convincing conclusions for the first research question these theoretical propositions guided the sources of evidence and specific principles or methods that I applied to the data sources to deal with the issues of reliability and validity. Because cognitive representations develop over time and across experiences, the data sources identified in this study included historical data (official school records), autobiographical report data (self-report as a student and member of community), and data from a semi-structured interview to investigate the knowledge the student held.

Yin (1984, 1994) described the methods for addressing the issues of reliability

and validity of data sources as the use of multiple, not just single, sources of evidence, creating a case study database, and maintaining a chain of evidence. These are stated by Yin (1994) as relevant methods for all types of data sources that address the problems in case study strategies concerning reliability and validity. Stake (1994) addresses the issue of validity and reliability in case study research by identifying five methods to help the researcher avoid misrepresentation for more reliable conclusions, these include (1) redundant data gathering, (2) procedural challenges to explanation, (3) triangulation using multiple sources of evidence, (4) identifying different ways the phenomenon is being seen, and (5) allowing the subject to read and comment on the accuracy of the field notes and interpretations. All of these methods help in dealing with the establishment of construct validity and reliability in case study research (Stake, 1994; McCracken 1988; Yin, 1984, 1994).

One of the methods used to establish reliability of the interpretation of the data from the first question included developing a data base that created a chain of evidence to identify the knowledge students have. As the raw data were arrayed, I consciously attempted to identify the cause and effect relationships that the student had used to develop their cognitive representations of future goals, plans, perceptions of abilities, obstacles, instrumentality and present task goals, and where or from whom this knowledge was acquired. Reliability was assessed by informant reviews. These consisted of reviews of interview transcripts during each interview session, then a final informant review of the final narrative, with revisions done as requested by the

participant.

Triangulation was used to address the issue of validity for the interpretation of the results. Future interests, motives and goals are based on the knowledge acquired over time and experiences (Nuttin, 1989a; Nurmi, 1991). The content of future goals and subgoals, the sequence of subgoals, the perceived causal relationships between events, self perceptions of ability, perceived instrumentality, and present classroom tasks, and where and from whom knowledge was acquired should be reflected in the historical records, the autobiographical report and interviews. These three lines of evidence provided mutually supportive evidence regarding the participant's knowledge across time. This knowledge was hypothesized to include the academic subjects, skills, responsibilities, personal characteristics, age, time and location, and perceived causation students associate with reaching future goals. This knowledge should be congruent with the knowledge held by the student for their plans for reaching the future.

The second and third questions in this study asked: "How might plans be related to academic achievement?" and "as the data emerges were they congruent or incongruent with the theoretical model?" These questions identified the unit of analysis as the planning process, and the possible causal relationships between the content of the components, self-regulation and academic achievement. A critical element in identifying a unit of analysis in a case study, when the unit of analysis is not the individual, is to seek participants who are currently concentrating and focusing

attention on the task under analysis. In this investigation these included the task of “planning for the future,” and the theoretically proposed interaction between the components of the theoretical model. Both of these units of analysis required specific considerations for identifying participants and the collection of relevant data.

Cantor and Kihlstrom (1987) stated that collecting relevant data on a universal global task such as planning for the future requires the task have explicit meaningfulness for the population from which the participants are drawn. The meaningfulness of the task is expected to motivate the participant to concentrate and focus attention on the specific task situation.

The global task of planning for the future within the social context is a universal task for adolescents (Erikson, 1950; Nuttin, 1968; Trommsdorf, 1983; Nurmi, 1989a, 1991, 1993). This period of development has been characterized as a period of heightened exploration (Super & Hall, 1979). Adolescents were expected to be exploring and focusing on specific knowledge from the various components of the model. This might include recalling and retrieving information based on the sociocultural context. For example, what future goals and subgoals are appropriate to pursue. Students were expected to focus on their past and present academic and social abilities. For example, the students’ perceptions of their academic and social ability to complete a course of action or subgoals to reach future goals. Students were expected to practice different solutions and draw from socially relevant feedback to revise or modify their plans to reach the future.

The students in the setting from which participants were drawn for this study had recently and consciously chosen an alternative means of receiving their education. These students had probably had to consider the social and academic factors that would change in the alternative school setting, and the short and long term consequences of making that choice. These students' current educational decisions did heighten their focus on the role of education in planning for the future.

Some of the structural changes in the alternative school that these students considered included: absenteeism and tardiness are not punishable in alternative school, but acknowledged to students by teachers; progress is self-paced, lessons completed on the computer have a mastery criteria. In both whole class instruction and on computer based instruction unit assignments are given, however, there are no deadlines. Teacher assistance in both modes of instruction are primarily given upon individual student requests.

Alternative school begins at 2:30 P.M. and closes at 8:30 P.M., four days a week. Students may attend any part or stay for the entire school period. These hours may serve as an incentive for making the decision to attend alternative school. Students who are supporting themselves may hold a job during the day, or if the students are responsible for getting themselves to school, these later hours may increase the likelihood of attendance.

For these reasons, the social situations and incentives for doing classroom work found in the traditional school were not all available in the alternative school

setting. These students were not eligible for extracurricular activities, including sports, student clubs, band, participation in student government or public school awards and recognitions, such as honor societies or year-end accomplishment awards. Additional social factors included leaving established friendships. Students would be attending an open classroom with students of various ages, where comparison of peer performance or competition may not be available. Other consequences of their choice to attend an alternative school may affect possible longer term goals. The diploma received from this educational setting is a diploma of high school attendance, not high school graduation. The students would have to consider how this type of diploma might influence reaching their future goals. As examples, type of occupation, having and providing for a family, and leisure time activities could be affected by not receiving a graduation diploma. However, students who choose the alternative school setting do have an opportunity to pace themselves to gain the required number of high school credits to be admitted to a junior or community college.

These factors may be considered in these students' decisions. The changes in daily school activities would be expected to be meaningful and motivate the participant to concentrate and focus attention on the consequences of this decision for education and social interaction, thus motivating them toward considerations as to how this might influence their future. This study focuses on a global social task, however, the goal of the research was to describe the knowledge and explore possible relationships specifically to academic achievement behaviors. Therefore, it was essential to limit the

sample space or range of topics investigated. This helped in maintaining a manageable amount of only relevant data for analysis.

Limiting the sample space of an investigation was accomplished by concentrating on a specific theme (Cantor & Kihlstrom, 1987; Eisenhardt & Berko, 1989). In this study, I attempted to inquire about the knowledge of future goals, subgoals, instrumentality and the daily achievement tasks that map onto the primary global task of planning for the future. From this point of view I attempted to hierarchically sequence the more specific components of the model and the casual sequence of relationships that were theoretically hypothesized to comprise the global task of planning for the future. In this study, the theoretical propositions and the hierarchical sequence of the collection of data followed the theoretical framework.

The theoretical framework suggested that students might begin the cognitive process of commitment and planning based on knowledge from their sociocultural context and self-perceptions of ability. Then, given this information, they retrieve relevant knowledge about subgoals, and make judgements of ability to accomplish the subgoals in a course of action. When tasks at school are perceived as instrumental to reaching a subgoal on the path to the future, the students evaluate their perceptions of ability for that task.

Cantor and Kihlstrom (1987) describe this type of inquiry as moving from the abstract to the circumscribed for the investigation of a social global task. In this study the collection of data

began with an attempt to identify the knowledge upon which the decision of commitment and planning of subgoals was based. This was followed by the identification of the perceived course of action, perceived instrumentality of the present task, the immediate task incentives and goals for the present task, self-judgement of abilities, and control over events, strategies and obstacles.. These represent the knowledge upon which plans are based. Research literature presented for this study suggested that students' plans were based upon the elaboration of knowledge which, in turn, determines the specificity of the definition of the future goal itself, and the clarity of the plan. The clarity and complexity of plans influences the level and types of self-regulation strategies, cognitive engagement, effort and persistence used during the present tasks.

Methods used to address reliability of the second question "how might plans be related to academic achievement?" included the development of a data base. The data base was then developed into a case record (Patton, 1981,1982) that clearly represented the knowledge and plans students have for the future. The data base and case record consisted of the data from the first question, which included historical data, autobiographical data and interview data. The data was therefore represented the knowledge upon which commitment and planning (declarative and procedural knowledge), was based. From this data I attempted to identify what knowledge students have that might be related to their present academic motivation and achievement. This analysis of the data was used to infer the relationships between the

past, present and future and the knowledge that the student held about a possible hierarchical sequence of future goals and the possible sequence of subgoals within a course of subgoals. This hierarchical sequence might lead to the identification of goals pursued or avoided and indicate external and internal causal attributions for goals pursued or avoided, overcoming obstacles, implementation of alternative solutions, and the possible coordination of multiple goals. This information was also used to indicate specific domain perceptions of social and academic abilities.

The data base, in addition to the information acquired during data collection of the first question, also included observations of present classroom behavior and a survey measurement of present goals, present classroom perceptions of ability, self-regulation, cognitive engagement, effort and persistence. Upon the compiling of this data base, I compared it to the students' academic achievement. This was conducted to explore how the individual students' plans were related to present academic achievement.

Triangulation was used as the method to judge the validity of the construct "planning for the future." The sources of converging evidence included: historical data, autobiographical data, interview data, direct and repeated researcher and teacher observation data, survey data and semester self-paced progress. These converging sources of evidence were aimed at the corroboration of the same phenomenon, "planning of the future." Knowledge of future goals and subgoals were derived from the first three sources of data, historical, autobiographical and interviews. The

participants' present observable classroom behavior provided evidence of their actions directed toward following the plan. The survey data measured present classroom goals, perceptions of ability, self-regulation strategies, level of cognitive engagement, effort and persistence. All of these sources of evidence were used to converge and provide information of the actual plan that the students follow most often on a daily basis. The outcomes of these analyses were then compared to the semester self-paced progress to determine if there are relationships between planning for the future and academic achievement.

The third research question addressed the theoretically proposed components that are believed to comprise the larger self-regulatory system that Bandura (1986) and Miller and Brickman (1997) believe are essential for successful school achievement. The theoretical proposition for this phase of the study stated that these components interact and are necessary for future goals to serve as an incentive for achievement motivation. This identified the unit of analysis as the interaction between components derived from the participants. The analysis determined whether the predicted patterns of interactions depicted in the model are found in the participants data.

The model suggests that students draw knowledge from several sources and experiences to devise plans for the future. Continued motivation over time toward future goals is dependent upon the knowledge the student has from the sociocultural context concerning what future goals and subgoals are appropriate, and general self-

concepts of ability about being able to reach the future goal. In addition to this knowledge the model also suggests that the student must continue to perceive present tasks as instrumental to one or more of the subgoals in the course of action to be motivated and cognitively engage in present tasks. The student uses self-regulation strategies to make the decision that the subgoals are indeed being accomplished, and why (causal attributions and procedural rules), and that the subgoals continue to be beneficial in reaching the future. The model suggests the components or sources of knowledge interact to enhance self-regulation for achievement. When there are plans for the future and students perceive instrumentality, and are successful on present classroom tasks, perceptions of ability are enhanced for present tasks, and enhances general-self-concepts of ability to complete a course of action to reach the future goal. This scenario increases the likelihood that the student will continue to be motivated and self-regulate their behavior during present tasks to reach the future goal. This question identified the knowledge students have within each component and their interactions. Therefore, the sources of data included the information from the first and second research question: the knowledge students hold about future goals and plans, knowledge from the sociocultural context, their perceptions of ability, instrumentality and present classroom goals, and their level of self-regulation, cognitive engagement, effort, persistence and achievement.

Methods for establishing reliability included creating a data base that reflected the representation of knowledge that students have from each component and the

interaction of these components. Additionally, for the present study multiple case studies were conducted. Global tasks, such as planning for the future are universal, yet because individuals have their own histories, each case is unique and rare, however, by providing multiple cross-case analyses and comparison of the theoretical proposition of the model and actual data in this study we provide evidence of components and causal relationships in the model that are universal and common in the task of planning for the future.

In order to present convincing conclusions concerning the impact of future goals on achievement motivation, not only were the criteria of participant selection and the unit of analysis adequately met, but the theoretical propositions guiding the sources of evidence and methods were applied to the data sources to deal with the issues of reliability and validity. I used a protocol that specifically described the sources of data and procedures, and the criteria for data analysis and interpretation. The case study protocol was a major tactic to increase reliability and validity of this case study research. The procedures for identifying participants and the specific protocols for this study are described in the next section.

Participant Identification Procedures

Participants for this study were recruited from an alternative school setting in a rural Midwestern community. This community was identified as meeting the demographic qualifications to receive a federal grant from the U. S. Department of Education. This community had the required percentage of students experiencing the

social and academic factors known to be related to low school achievement. The alternative school falls under the administration of the Public School Board and regular school administration. A summary of the study and the questions to be asked of students and information concerning protection of students' privacy were formally presented to the Institutional Review Board, and the School Board requesting access to alternative student participants. This same report was presented to the two alternative school teachers asking for their permission to conduct research during the students' class time and their participation in the selection of participants and filling out teacher observation surveys.

I asked the two alternative teachers to help select three participants from those who returned permission forms. I asked teachers to help select students who would be responsible in coming to interviews when scheduled and who would be cooperative. Based on this information I chose three cases. I was contracted to provide student counseling services under the Educate America Act, Goal 2000 and was present at the alternative school three days a week. The participants did not receive my counseling services during the research study.

Selected participants were informed during school hours of the focus of this research study, and the participant permission forms explained. They were asked to take parental permission forms home and explain them to their parents. I told them I would be available at the alternative school if their parents wished to ask any questions concerning the research project. Participants were informed about the

type and contents of questions that would be asked in interviews and surveys, and that the interviews would be tape recorded and transcribed in report form. They were also be informed that their teachers and I, from time to time, would observe their classroom behavior, taking notes that would be used in the final report. They were told that they would have the opportunity to review what was written from the tapes and observations and could ask that details be changed that were not correct or true. They were encouraged to participate only if they are willing to meet scheduled interviews and give honest and accurate accounts during interviews and surveys. The importance of completing the study as accurately as possible was stressed. To encourage their involvement in the study they were informed that the knowledge gained through their participation in this research would benefit other students. The students were asked to return forms as promptly as possible, whether they agreed or declined to be a participant in the study. The selection of the three final participants was based on the teachers', and my own opinion, as to the participants' willingness to fulfill research data collection procedures. Each of these participants followed the same protocol for each question as described in the next section.

Procedures

Question 1 Protocol: How do students represent knowledge in their plans for the future?

The protocol for the descriptive phase included collecting data from the following sources: historical data, autobiographical data, interviews and informant

review.

Historical Record. Formal school records and achievement test scores were reviewed. Historical records provided an account of past performance within subject domains. These records included elementary, middle school and high school public school achievement levels for two student participants. One participant had a shot record and one Iowa Test of Basic Skills administered at the 7th grade level in their cumulative file. For the other two participants the data included levels of achievement by subject domain and achievement test scores by domain. School attendance and absenteeism was reviewed and recorded. This was relevant information in regard to the domains and possible inferred levels of knowledge the students might represent within domains. I used this source of data as one of three converging sources of data for validity purposes. The other two sources were the autobiographical and interview data. These were used to provide insight into possible domain specific perceptions of ability and a picture of achievement trends..

Autobiographical Record. An autobiographical record is described by Cantor and Kilhstrom (1987) as a running record of one's past. This is technically a retrospective report that must rely on the participants' subjective recall. However, the related literature for this study suggested that subjective perceptions shape the knowledge upon which future expectations and plans are based. Therefore, I used the subjective recall of the participants as students, their perceptions of themselves in the social context of school, their perceived academic and social abilities at school,

favorite subjects, disliked subjects, friendships or relationships with peers and teachers, and past involvements with school activities as relevant data for this study. Also, relevant to this study was information concerning their perceptions of themselves in the community and social abilities, hobbies or outside of school extracurricular activities, present types of relationships with alternative school peers, other possible friends, and teachers, types of employment, and reasons or factors (both academic and social) considered by the students to have hindered their traditional school performance, and to have been used in the decision to select the alternative school as the means for their education.

Markus & Nurius (1988) state that people are more prone to recall positive self images. Asking people to tell about themselves is an excellent means to begin the building of rapport, it establishes that the interview setting is for them to “tell about themselves.” After I established rapport I asked them about personal negative aspects they perceived about themselves, perceived weaknesses and dislike for certain things at school.

Interviews. The interview as a research technique can be the primary source of data or used in conjunction with other research techniques including other qualitative techniques such as observations, or with quantitative techniques from which numerical data is gathered such as scales or surveys (Borg & Gall, 1989; Eisenhardt & Berko, 1989). The interview is unique in that it is the direct interaction between individuals. There are advantages and disadvantages of this technique which were relevant to the

present study.

Inquiring about knowledge that an individual holds lends itself well to the flexibility, adaptability and human interaction of the interview technique (Borg & Gall, 1989).. I carefully motivated the subject and maintained rapport so they might reveal information that may not be revealed in a questionnaire or survey. I used adequate prompts or probes to collect relevant data, especially when I needed information that involved opinions, negative aspects about the self, or negative feelings toward others or certain situations.

The characteristics of the interview technique that make it advantageous to the collection of relevant data also create the disadvantages of this technique. Flexibility, adaptability, and human interaction often allow subjectivity and possible bias (McCracken, 1988 Borg & Gall, 1989). I intentionally used appropriate questions, and attempted to follow up with appropriate probes. Since this was a descriptive and exploratory studies I used open-ended questions to allow possible follow-up, thus obtaining more data and greater clarity of respondent information. This study was guided by theoretical propositions suitable for prompts that could be anticipated with more structured questions or probes being developed before interviews for more specific information (McCracken, 1988). Therefore, disadvantages can be overcome by the careful development of interview questions and follow-up prompts for specific information that does not control the respondents answers, but allows them to “tell their story.”

For this study I developed an interview guide which began with types of knowledge and the sources of knowledge upon which expectations of the future and plans were hypothesized to be based. This follows Cantor and Kilhstrom's (1987) and Yin's (1984, 1994) suggestion for limiting the data collection to relevant information to help manage the amount of data collected, and maximize the opportunity to link data to the questions and conclusions. Developing the interview by these guidelines helped ensure a logical chain of evidence to aid in the reliability of conclusions.

Interviews began with the autobiographical report followed by questions asking students what future goals they expect to accomplish, and specific knowledge they had about those goals and the subgoals needed to reach them. An example of a prompt I used for the first question included suggestions as to what in general adolescents usually consider as expected future goals, such as, completing school, having a family. Students were asked what in their present situation at school they believed was important to accomplish subgoals and future goals. Other relevant data was derived from questions asking about the obstacles and alternatives that they had experienced in the past, and what they considered as possible obstacles in the near and distant future, and alternatives for overcoming those obstacles in the present and future. The interview also included questions pertaining to where, or from whom their knowledge was acquired. The complete interview guide can be found in Appendix A.

Yin (1984, 1994) and Cantor and Kilhstrom (1987) and Borg and Gall, 1989) suggest that limiting the interview session to reasonable lengths such as 30 to 60

minutes is advantageous to the interviewer and interviewee. I limited time so I could keep the participant focused to relevant data and let the interviewee know that they had a time limit to tell what they perceived to be the most relevant data for the research study that had been explained to them.

Informant Review. Asking the respondent to review the interview data report is most commonly used in triangulation to demonstrate validity. In addition to this however, asking the respondent to review the interview report often opens up new perspectives about the topic under study (Borg & Gall, 1989) which can contribute to the clarity and depth of the interview data. As described, at the beginning of the second session each participant was asked to review the transcription of the previous session. A final participant review was conducted at the end of the study. This informant review is described in the following *Procedures and Analysis of Data* section.

Procedures: Question 1

The autobiographical reports and interview data collection was conducted in three scheduled interviews lasting approximately one hour, and one final session to review the entire interview report. The interviews were scheduled during their regular school hours, with two interviews scheduled at least two days apart within the first week of interviewing, with the last session the following week of interviewing. Each interview session was be tape-recorded. The first interview asked the student to give his or her autobiographical report, followed by as much of the interview guideline as

possible. The following sessions began by reviewing with the participant their autobiographical record during the second session, and the previous sessions' interview questions with the participant in the following interviews. Each participant and I tried to identify anything that was not transcribed correctly. Additionally, I asked the student if, after they left the last session, was there anything they thought about that they wished they had said, or was there anything they would like removed from the present data report.

I transcribed each interview within 24 hours of the session, and had the raw data report ready for the following session for the informant review. Each session began with the informant review followed by questions remaining on the interview guide. I took an additional interview session with all three participants to review the full written narrative that used in this research.

Permission for participation included access to school records for the collection of historical data. This data was collected after the interview sessions at the convenience of the school personnel responsible for student records.

Analysis and Interpretation for Question 1

The theoretical propositions that guided this research design and interview questions were used to array the data for analysis. Analytic techniques included: categorizing content, making a matrix by the interview questions, and categorizing the content for each case study. Yin (1984, 1994) suggests that when interpreting documentary data such as school records that the context in which the grades and test

scores emerged, and the audience for which the data was originally collected be taken into consideration. In these case studies I considered that these students were experiencing contextual and personal factors that are known to influence learning. Therefore, it was necessary to examine domain content for consistency across time, or note any fluctuations in achievement levels over time. Also, standardized achievement test scores were compared to level of classroom achievement by domain. This comparison helped indicate whether there were possible classroom contextual factors that influenced class performance but not necessarily learning domain content. All of these sources of data were best arrayed by domain content, and a content scheme of past and present knowledge, and specific future goal and subgoal content knowledge. The data base also included obstacles that the student had stated they had encountered in the past and present, followed by expected future information such as predicted obstacles and alternatives to overcome or to avoid. These were also arrayed by content categories. The knowledge gained from others' experiences and other sources of knowledge such as daily experiences with classroom tasks followed similar arraying techniques.

As the data were arrayed, I consciously attempted to define alternative explanations to the theoretical propositions. Additional alternatives to these propositions did not arise as the analytic techniques for arraying data were completed. The categories were very consistent across case studies. Considering alternative theoretical propositions is an important criterion for interpretation of results in

qualitative research (Eisenhardt & Berko, 1989; Peshkin, 1992; Glesne & Peshkin, 1992; Stake, 1994).. Another technique contributing to the reliability and convincingness of conclusions is having the interviewee review the final narrative to verify the content and interpretations. In this study, the most critical interpretations were the cause and effect relationships upon which they based their plans. This informant review was conducted approximately three months after the initial interview. It was conducted with all three participants present at the same session. Each participant sat at an individual table. They were asked to read the description of themselves and their family, and present living situation. I remained in the room and told them they could ask questions about words or interpretations I had made. I asked them as they read to come and tell me about changes that either needed to be made or things they wished to have removed from the narrative. I wrote notes on their reading copy and made changes accordingly prior to the writing of the final draft. Each participant followed the same procedure for each additional section of the narrative. After the participants had finished their own individual narratives they asked to hear each others'. I read and described each participants story. They periodically stopped me to comment on their own, or asked other participants about their unique experiences, and to exchange comments about common experiences. Application of this procedure helps establish reliability of conclusions (Yin, 1984, 1994; Borg & Gall, 1989; Glesne & Peshkin, 1992; Peshkin, 1993; Stake, 1994). The results and requested changes by the participants of this descriptive phase of the research are

presented in narrative form. The sequence of the narrative followed the array of data that best described the knowledge of the student concerning their plans for the future.

Protocol for Question 2: How might students' plans be related to their academic achievement?

The data sources for the exploratory phase of this study included: interview data from question 1, survey data, direct repeated observations and the students' academic progress.

Interview data from question 1. The raw data from the historical, autobiographical and interview questions was used to identify the aspects of, and from what sources, the types of knowledge the student holds concerning plans for the future. Categories were arrayed by content and the cause and effect relationships respective to each content category. These categories comprised the student's representations of future goals, subgoals, strategies, past teacher and student interactions, peers, present teacher and student interactions, perceptions of obstacles and perceptions of abilities.

Direct Repeated Observations. In order to explore if students followed their stated plans during everyday activities direct repeated observations were conducted. Observations provided information that if given in self-reports or on questionnaires may be biased. Observations allowed the me to systematically record behavior that could not be accurately recalled by the participant or that the participant was unaware

of.

Concern for reliability and the use of observational data can be overcome by defining variables to be observed, and by identifying them as descriptive, inferential or evaluative. These suggestions by Borg and Gall (1989) were used to develop and define observation behaviors and develop an observational form. These forms represented motivational behavior that were explicitly observable in a self-paced program. Observations included ratings of their daily classroom work, and in what order they completed it, arriving on time, and beginning work promptly, teachers prompting staying on task. The observers noted on the form any behaviors that indicated motivation, such as what excuses students use for their tardiness. The same forms were used in repeated observations by the teachers and me. The observational form is presented in Appendix A. These types of observations over a several week period were more effective in exploring the possible relationships of plans to motivation for daily activities.

Surveys. The surveys for this study will be a modification of *The Introductory Survey on Learning Mathematics* and the *Survey on Learning Mathematics Follow-up*. These were used by Miller, et al., (1996) and Brickman, Miller and Roedel (1997). These scales have shown repeated moderate to high reliabilities when administered in high school math classes. These surveys were modified by deleting the reference to math classes, and replaced with statements referring the overall range of school subjects. These questions in this survey were presented in separate subscales

that measure present classroom goals, future goals (Brickman, Miller & Roedel, 1997) instrumentality, self-regulation, cognitive engagement, effort and persistence. The learning and performance goal subscales each contain four items. The previous construct of future consequences used by Miller (et al., 1996) consisted of 15 items, three items measuring each of the following future consequences: to receive rewards from family, to receive school recognition, to stay eligible for extracurricular activities, to gain college admission, and to get a job. The school recognition and extracurricular activity questions were deleted from the survey for this study because they did not apply to the alternative school setting. Students' cognitive engagement was measured by 29 items which tapped self-regulation, deep and shallow strategy use, effort and persistence. All of the items, except effort, were Likert-type with five response alternatives. Effort was measured by a single, five alternative multiple-choice item. This question asked the student to rate their overall effort in school, rather than effort in math class relative to other classes.

The concluding section of the survey contained two sets of items, one set measuring the perceived personal importance of various future goals and the other measuring the strength of the perceived instrumental relationship between doing well in daily school work to attainment of the various future goals. There were 9 future goals which students were asked to rate for importance and instrumentality on a five point Likert-type scale. The full scale can be reviewed in Appendix A.

Academic Progress. Academic progress was reported by the number of units

completed for each subject and any half or full subject credits earned during the semester.

Procedures for Question 2

There were three one-hour observations done by three observers, the first of my observations followed the second interview. The second observation followed the third interview, with the third observation being made in the following week. This schedule made my observations fall once a week. Teachers were instructed on how to complete the observation forms. They were asked to complete their observation forms at the beginning of data collection, at a midpoint of the research study and toward the end of the term. Teachers scheduled their observations so no two observations were made on the same day. This sequence represented an overall motivational portrait of the student over the complete semester. The surveys were administered to all participants in one session following all of the interviews. Each participant sat at an individual table and I was present to answer any questions. The surveys took approximately 40 minutes for all participants to complete. Waiting until observations were completed prevented the student from focusing upon or changing their academic behaviors after being made aware of types of goals and strategies measured within the subscales.

Analysis and Interpretation Question 2

Theory comparison analysis techniques (Yin, 1984, 1994) were used given the theoretical propositions that led to the identification of the knowledge upon which

plans were hypothesized to be based. Students were expected to use knowledge from their sociocultural and present school contexts to develop their plans. The procedure for arraying the survey data followed a profile report of the student's self-report of intrinsic, extrinsic and future valuing of subject material. This was followed by reports of their cognitive engagement, self-regulation, persistence, effort and perceptions of ability. Data from the interview were used to indicate the relationships between family educational background and present living situation, past and present school experiences with teachers and peers, future goals, subgoals, strategies, perceived instrumentality and perceptions of ability.

Direct-repeated observation is considered to be a type of time-series analysis (Yin, 1984, 1994). Observed behaviors were examined across all observation forms completed by the teachers and me. These were examined for consistencies in ratings, ranges of ratings of the observed motivational behaviors over time, then used to describe and identify if the students motivational strategies or tendencies toward school and daily academic work were consistent with their survey data. The observational forms included space for additional motivational strategies that students might implement. The teachers and I will described these behaviors explicitly; how and under what conditions they occurred and their frequency. These were included in the description of the students' motivational profile.

The survey data were described by consistencies or range for each subscale for each case. This provided a picture of the student's goals, self-regulation, cognitive

engagement, effort and persistence for their present classroom work. These were included in the motivational profile of the student. The survey also provided an indication of the specific future goals that other researchers (Trommsdorf, 1983; Nuttin, 1984; Nurmi, 1991) have identified as typical for adolescents to focus planning, and the perceived instrumentality of present school work for reaching specific goals. In this exploratory analysis the goal was to look for insights beyond what any single source of data might uncover. These descriptions included the information collected from interviews and the self-report surveys, and also the observed classroom behavior. Planning is an ongoing daily process, the information from the data sources should indicate the plans students follow in their daily routines at school. These student profiles of plans were explored for relationships between their plans and present motivational behaviors and achievement. This layout of the case study report made comparison to theory and a cross-case exploration much easier. It made it easier to draw clearer conclusions and consider alternative theories concerning the relationships between plans and academic achievement.

Protocol Question 3: Do these data support the theoretical model presented by Miller & Brickman (1997)?

The data sources for the explanatory phase of this research included: historical and autobiographical data, interviews, surveys, repeated observations and academic progress.

Historical, autobiographical and interview data. The data from these sources

were arrayed according to the components of the model, with the patterns of relationships between components believed to be part of the larger self-regulatory system. This data was arrayed to represent the components and the interacting relationships predicted by the theoretical model. The data base included knowledge was derived from the sociocultural context and direct experience in the classroom. These sources of knowledge are hypothesized to precede commitment and influencing planning of subgoals. The data base will also include knowledge concerning obstacles encountered in the past and present by the student. These components and other factors were hypothesized to combine and influence perceptions of ability to complete a course of subgoals, influence present classroom goal choice, which in turn influences level of self-regulation and performance. I consciously considered alternative theoretical propositions for the model and hypotheses as the data were arrayed, including any newly discovered variables.

Analysis and Interpretation: Question 3

The theoretical assumption for question three was that the components and the sequence or the predicted relationships between the components are necessary for future goals to serve as an incentive for present academic behaviors and achievement. Knowledge components were analyzed by whether they were present, or absent, and if present did the components appear to interact as predicted. Each relationship matching the model was noted. I considered any new information that might justify any additional components or interacting relationships of components, or an exclusion

of any components of the model. Therefore, the “actual” data was analyzed and then were fundamentally compared to the components and the relationships predicted by the model. If indicated by the first case that there were no conflicting and/or alternative relationships possible, no new theoretical propositions were discovered. As an example, there were not any relationships found that suggested that components were not functioning as predicted by the model. After the first case comparison was completed, then the second case was analyzed by the same procedures. I examined the data to determine if there were any conflicting and/or alternative relationships. Then considered and compared across the first two cases. The possible changes in theoretical propositions concerning relationships were considered. This analytic procedure was then conducted for the third case, noting every possible match, conflict or alternative. The information generated from this case was then compared first to the theoretical model, then to the relationships of the first and second case. After all cases were analyzed individually, cross-case analysis consisted of pattern matching. This is described by Yin (1984, 1994) as iterative explanation building. It is a fundamental comparison between the predicted contents and pattern of the model and the actual knowledge and pattern that emerges from the data. This was actually a comparison of possible alternative theoretical propositions across cases. Additionally, I took the patterns of relationships found across the first case, then compared these details against any of those in the second and third case studies. This procedure was repeated until all possible alternatives had been compared and considered across cases.

This gave an indication of how these three unique cases compare to the theoretically hypothesized components and their relationships.

This question followed a theory-building structure. Components and the relationships that emerged from the data when compared to the model will be discussed. The relationships that were revealed during analysis will be discussed as to their implications for future research. The final report of this data will also include what might be common or universal across these three cases.

Chapter III

Results: Case Studies and Motivational Profiles

This chapter will present each case study, followed by each respective motivational profile, and finally the results of the cross case analysis. Each case study includes a description of the knowledge upon which the student's plans developed. Informant reviews were conducted at the beginning of each interview and after the final writing of the case study. The case studies reflect any changes that the participants requested. The results of the future goal and importance of present performance survey and the results of the survey which tapped perceptions of ability will be included in the description of plans.

The questions for the interview were based on the theories reviewed earlier. The questions mapped onto the components depicted in the Miller and Brickman (1997) model that were expected to interact and impact present achievement motivation. The future goal survey asked students to rate the level of importance of various future goals and how important they felt their present performance was on each of their core subjects to the accomplishment of the various future goals. The survey measuring self-perceptions of ability asked students how confident they felt in understanding the material in their core classes and how they perceived their ability in comparison to their peers. The results for all of the surveys are presented in appendices for each respective case.

Each individual case study will then be followed by the student's motivational

profile. This section includes the results of the survey tapping present goals, valuing, cognitive engagement and self-regulation. The motivational profile was constructed from the results of the *Introductory Learning Survey and the Learning Survey, Follow-up*. These surveys tapped goals for present tasks, levels of intrinsic, extrinsic and future valuing, cognitive engagement, self-regulation, persistence and effort in each of the case study participant's core subjects. In addition, the results of repeated observations that were conducted to offer support for what students indicated by their self-report of their present classroom motivation. The two alternative teachers and I served as the observers. There were thirteen specific behaviors that observers were to indicate by circling 'yes' or 'no'. Then they were to indicate the frequency of this behavior across time by rating each behavior on a scale from one to five to indicate how typical this behavior was of this student. Academic achievement was measured by the number of computer-based lessons completed and class credits received both on the computer and through traditional text book methods.

Finally, the results of the cross case analysis will be presented. This allows the comparison of each case study at each component of the model. The results will be discussed in regard to the impact of sociocultural knowledge and educational experiences on the development of plans and the motivational impact of plans on achievement.

Case Study 1

Case Study 1: Goals and Plans for the Future

Selena is a 14-year-old Mexican female. She was quite insistent that reference to her ethnic origin is Mexican rather than Hispanic. She attempted to help me understand what the word Hispanic meant to her. She said that Hispanic referred to the region from which one came to the United States. She noticed that I was not understanding her concept and finally ended the conversation with the message that she becomes quite discouraged filling out forms on which she has to identify herself as Hispanic. Her socialization, subsequent identification and the influence of her Mexican culture on her expected future were revealed throughout her stories of family and educational experiences.

Selena presently lives with her father and stepmother. Her father is Mexican and her stepmother is Caucasian, they have a small daughter about four years old. Selena's boyfriend is also Mexican and lives within the family unit. Selena's father's mother at the time of the interview was expected to be here on a 6-month visa and would be staying in the home. Her sister, her husband and their child also live in the same community. Selena's mother, stepfather, two sisters, various aunts, uncles and cousins live in another state. She reported that prior to moving here her boyfriend had followed her and her family to various locations when she was living with her mother. She said that he had been in some trouble and she was sent here to live with her father because her mother did not approve of him.

Although Selena's parents have been divorced for some time, they have continued to interact in such areas as acquiring jobs, gaining citizenship, and in financially supporting their children. Both parents have been active in relaying family history and traditional Mexican customs. Selena's family knowledge was very complete. She knew of the circumstances upon which her family came to the United States and various types of jobs her parents have had over their frequent moves.

Selena had a very detailed description of her mother's situation in Mexico which forced her to come to the United States without her three children and her husband. The town in Mexico in which her parents lived believed that certain people had the power to place curses upon others. The family's belief that a curse had been placed on her mother caused her family to suggest that her mother leave the country. Her mother left, found employment in the United States, and after earning enough money returned to get Selena and her sisters. Selena's father remained in Mexico with his mother. Selena also told of her parent's marriage, and their divorce and the consequences that followed.

She said that her mother was 15 when she got married, 16 when she had her older sister. Her grandmother was 16 when she married. She acknowledged that this is the age of marriage, "in Mexico, not here." Talking about her parent's courtship she said, "they really didn't know each other before they were married." She said that after their marriage her parents did not live together. Her mother and father each lived in their own parent's home. Her mother and father divorced while he was still in

Mexico. Selena reported that her mother and stepfather helped her father come to the United States and helped him gain citizenship. Selena said that for her and her sister to be a legal citizens before adulthood that her father would have to acquire the legal divorce documents from Mexico. She reported that “my sister and me don’t have our papers because it costs a lot of money to get a lawyer in Mexico to send them.” She said that they had heard that after you are 23 then you can apply for your own citizenship, but they can stay here because their father is a citizen.

Selena told several stories of her family’s struggles to stay here with their children. These stories seemed to relay the sacrifices her parents have made to raise and educate their children in the United States. Selena reported that her mother told her she quit one job because the manager would not continue to let her bring Selena and her sister to work with her. Selena proudly said that the manager said, “Okay, you can bring your babies but you have to keep them in the back.” Selena said that he did this because “her mother was a good worker.”

Although her grandparents do not live here, she values the relationship through the stories and indirect experiences she has had through her mother. Selena reported that her mother went back to visit her grandparents before she had the papers to return back to the United States. Selena and her sister remained here with friends. Selena said, “I was scared she couldn’t come back.” However, Selena went on with pride and in great detail to tell the story her mother told her when she returned. Selena could report that her grandfather was sitting on the front porch drinking coffee when her

mother arrived and that, “he was real happy and was he was crying when he saw her.” Her mother told her that her grandparents wanted very much to see her. Selena’s grandparents later came to the United States due to a relative’s health problems. Selena served as the interpreter between the doctors and her family. Selena said of her grandparents seeing her, “and they were really happy to see me.” The stories that Selena told indicate her dedication to family and identification with her Mexican culture.

As Selena continued her stories, she implied that her family had prospered in the United States. She said her mother’s more recent jobs had included working in a plastic factory and in a furniture store. Her father had worked as a gardener, in a meat processing plant, a carpet mill and presently lays carpet and tile. Her boyfriend and her sister’s husband also work for the same business as her father. Selena reported on her boyfriend’s and her father’s work ethics. She said of her boyfriend, “his boss likes him a lot because he’s a hard worker and he’s not lazy, he knows how to learn fast.” Selena said the boss said this about her father, “if he ever quits to tell him two weeks because he is a good worker too.” Her sister works as a waitress in a Mexican restaurant and Selena went to work there during the course of the research study. The local Mexican community helps each other to maintain their families within the larger community. This is also true of each member living within the family unit. Through Selena’s description of her relationship with her boyfriend, it was apparent that they participate as active adults in contributing to the financial support of the family in the

United States.

Selena reported, “we don’t hardly see each other, he goes to work at 7:00”. After the family goes to work, Selena prepares meals in advance for the family, she stated that she did this because, “my step-mom she don’t like Mexican except for tacos and enchiladas.” A typical day for Selena begins with cooking, then she works from 11:00 to 2:00, then attends school. When she gets home at 8:30, the family sits down for their evening meal that Selena prepared before work. The evenings were reported as typically being spent watching TV and, “we all go to bed at 10:00 because my boyfriend and father have to go to work at 7:00, except when we have to talk.”

Selena described one of the discussions that her family had when they had to talk:

Like we didn’t go to sleep until 12:00 one night cause I told him he needs to call his mom because he hadn’t talk to her in a long long time. His mom doesn’t have a phone, its costs like 500.00 to have a phone in Mexico. He called once but he didn’t let him talk to her. The guy who has a phone let her borrow the phone and he said she couldn’t borrow the phone, she was going to call, but we talked about for a long time and he cried because he didn’t send her the money for a phone and I told him he should get one of them phone cards, and call his mom. My dad said I should call my mom cause we should go see her cause I haven’t seen her about a year but my dad said not to get excited, then we might not get to go.

Selena went on to tell how she and her boyfriend contribute to the family. She reported that they must save \$50.00 to pay for gas, “and whenever we have to buy something we don’t go anywhere, if you do then when you get home you don’t have enough money so you might have to borrow some from someone, then you have to

pay them back, then you don't have any money to save to get things you need." She went on to explain how they bought their television set, "we pay a man so much every week and we already paid for it, we went to another town but we didn't cash the check because we had to pay the man for the TV", we only spend what we had left from before." She also reported that for her lunches at school, "I only take what we have left." The entire family's efforts seem to be directed toward working hard to maintain the family in the United States and benefit from the opportunities afforded here, especially education. Selena's description of her and her boyfriend's working relationship in the family seemed to be represented as very realistic perception of an adult relationship. She ended her description of their relationship with this comment, "we fight sometimes."

Educational barriers in Mexico were reported as the primary reason for the lack of formal education of her parents, extended family members and her boyfriend. Selena said, "my father went to 6th grade and my mother, I don't know for sure, but I don't think so." She reported that her parents did not finish school, "because over there in Mexico you have to pay to go to middle school and high school and they didn't have the money to go." She reported that her boyfriend went to 6th grade in Mexico but when he came here he was expelled for fighting. Consequently, due to a lack of formal education her parents neither read Spanish well, nor spoke English fluently. Spanish is still the primary language spoken in both her parents' homes. She reported that her father speaks and reads both, "but he doesn't always know what he is

reading.” Her mother went to a school here in the United States to learn English; however, Selena reported she didn’t get a degree and indicated that she possibly wasn’t able to finish the course. Selena reported that she herself speaks Spanish and uses Spanish slang to communicate with her boyfriend, and she frequently uses both languages in conversations with others. Selena clearly speaks both languages, and slang versions of both, and distinguishes between them. Although she can speak quite fluently in Spanish and English, she cannot read Spanish. She said this concerning her perceptions of her own ability and her sister’s ability to read English, “my sister reads real good, but I think it is still hard for me to read.” Her families’ past educational history seemed to influence their support for education and played a significant role in her future goals and plans. In the following story Selena described her boyfriends insistence that she finishes school.

Because my boyfriend tells me to go to school, like sometimes I want to work, like I said I wanted to work at the restaurant and my boyfriend said no because I wouldn’t want to go to school, cause you would go to work and be too tired, I would say I would be too tired to go to school, so I would not want to go to school. He says school comes first. He says that after you go to school you can work anywhere you want to but school comes first. Get your high school degree, graduate, finish school then you can go to work anywhere you want.

Selena and her sister have attended an alternative school setting in this rural community for the past two years. Prior to the last two years Selena reported that she had changed schools at least three if not four times across three different states in her first six years of education. When Selena entered the alternative school, she was

evaluated for achievement level in English, science, math and social studies. She began work at the 8th grade level in the semester prior to this investigation. Her present level of work in history, science and math was primarily at the 9th grade level and English was somewhere between the 8th and 9th grade level. Selena participates in the tutoring program, plays basketball and works in the community to fulfill her Life Skills class.

Future Goals and Subgoals

When Selena was asked what she wanted to do and expected to accomplish in the future she stated, “keep on goin to school, high school and college”. She promptly followed this statement by “first I wanted to be a lawyer”. Then she went on to say:

After I finish high school I want to go to college, like four years or something. First I wanted to be a stewardess, then I wanted to be a physical therapist then I wanted to be a stewardess again. Um, get married and everyone was having babies and I want to too. I want a boy and a girl.

These statements identify Selena’s possible future goals and indicate what she includes in her on-going plans. Her present plans are to possibly continue in school, graduate from high school, go to college, and she had considered specific occupational future goals. She also wants to marry and have a family. Based on her present knowledge of future goals she had eliminated two occupations. This might suggest that she has used knowledge about herself, others and events to consider why she might not be able to reach these two occupations.

When asked how she had planned to reach her educational goal she stated,

“you just have to do what the teacher tells you to do, so you can finish school.” She went on to talk about how she knew school was important. She said:

I’m like, being here a long time. My mom and dad said to, they’re the ones keep on saying go to school. I don’t want to go but they keep on saying that go to school, if not, you’re gonna be like us, from job to job, you know, if you keep on goin to school you get a career you get paid more if you do better you get paid more , if you go to school. Sit at a computer or something, if you don’t go to school you, and we have to, they say, sweat, sweat jobs, and that’s’ why they keep on tellin my sister and me to keep on going to school.

The need to “keep on goin to school” seems to imply that there are specific strategies to continue in school. She perceived the continuance in school as a subgoal to her future goal for finishing school which in turn was a subgoal for a career. Her previous statements also suggest that college may be another possible subgoal to a career. When I inquired as to her knowledge and possible plans for college she stated: “I know you go 2 years or 4 years, my step-mom said it was expensive.” She went on to explain that her step-mother told her that you could receive financial aide and pay it back after you finish.:

My step-mother was goin to go but she didn’t. But my step-mom said I could get some grants or something from the government. At first she wanted to go but she didn’t and her mom was goin to get some money from the government but she didn’t go. She said you can get money and pay it back after, or later, and if you do really good sometimes you don’t have to pay it back.

I asked Selena if she had ever been to a college campus. She replied, “I drove by with that girl who her brother goes to that college.” When I asked her about living at college, if she knew what a dorm was she said, “No, I don’t know what a dorm is.”

I asked her if any of her family had been to college? Selena replied with this story:

I think my aunt, I don't know her name, I think she got her degree, she didn't get married until she was 22 or 21. I think she got her degree. I got this cousin, one of my aunts daughters, she got her degree and she's going to college down there in Mexico, I think she's going to be a nurse. My grandmother told me, we don't ever talk to them before. She's going to college and has only a year and she will be finished or somethin. I don't know how old she is I just seen her in a picture. She looks real little.

In this story Selena appears to have built the cause and effect relationship between college and specific careers. This relationship was supported by her future goal statement where she moved from talking about educational goals to occupational goals. After she spoke of her educational goals she promptly said, "first I wanted to be a lawyer." When asked as to why she considered this goal at one time she replied:

My mom had a lawyer, she was really nice, she had her own library, and she spoke Spanish. I know the Judge. Is it true that if you're a lawyer you can't get married? I think you have to go to school seven years. She, my mom's lawyer had to read all them books. You have to read a lot of books.

Inquiry into her consideration of being a physical therapist revealed this short story:

I have known him (boyfriend) since I was 12. He liked moved in front of my house. We lived on this street, in a pretty house and the people in the house in front of us moved, he moved in, he got his arm caught in this machine at work, and he had to go to the therapist and he didn't speak English so he asked me to go with him. Then I would help him do what the therapist said to do.

When Selena was asked about pursuing the occupation of becoming a stewardess she relayed this story that indicated her knowledge about this future goal.

The girl, the daughter of the man who has the restaurant she said she wanted to be a stewardess but she was too ugly and fat. She said you could go to that

school and they teach you and you stand behind a curtain and speak into that microphone and they just teach you how to read the stuff, communicate, that's all. I think you have to go to that school then they take you to where you work. You work a week there and week there. You have to talk in that microphone thing. How to put the belts on and stuff and you have to give out cookies and peanuts and all that, and I think I'd like it. And when the plane crashes in the water there's a thing under the seat and you have to tell them about that and uh, sometimes I'm scared because I think the plane might crash and we'll all die and that's why I didn't want to be a stewardess, anyway we'll all die someday.

This story indicated that she may have flown before in addition to having the restaurant manager's daughter tell her about becoming a stewardess. When I inquired she said, "yes, when my mother sent me down here to live with my dad, it was one hour and 5 minutes." When I asked her to tell me how she planned on reaching this goal she said, "That girl I told you about, she said there was one (school) in the city, but I don't know where. I don't know I just thought I could do that when I finish school."

This story reveals that Selena knew that she had to finish high school to pursue this goal, attend a special school, and knew what you learn at school to be a stewardess. She had identified physical characteristics required to be a stewardess, the tasks required and how and where the task was completed.

When Selena was asked to tell about her future plans to marry and have children she revealed the reasons upon which her boyfriend is allowed to live with the family unit. She said:

My dad lets him (boyfriend) live with us to make sure I'll know we can get along. I'll know for sure that's the one I want to marry, then you'll get along

well, then we know we can get along so we won't have to pay money, so it's best to let him live with us then get married. Then you won't have to pay to get divorce, it's best just to get to know him better and that's why he lets him live there. Yea, that's what my dad says cause that's the mistake my mom and him made. They didn't know each other before they got married.

It appears that Selena's strategy to marriage is getting to know her future spouse to ensure that the marriage won't end in divorce. When I asked her what she felt she knew, and how she knew that she wanted to have a family she relayed this story.

My mother had two babies with my step-father and took care of my sister's baby and my boyfriend's nephew. And I took care of a lot of babies and there was this white baby and she was real pretty and she had blue eyes. I change diapers and a lot of them. And she would cry when her mother would leave then she would start playing with me and stop. I took care of a lot of babies. So I'll know how to teach my babies. Whenever I was little I would leave my clothes wherever I took them off and I thought she was the mom so she would pick them up, but she said I was being like a snake because when they leave their skin laying around wherever they take it off. Well, she would get mad if we didn't. She said we had to learn so our boyfriends mother wouldn't talk about us. Say we weren't good for their sons.

These statements indicate that at the present time Selena's knowledge for a successful marriage and family include the specific skills: learning to take care of children, learn to keep house and know what and how to teach your children important lessons.

Theory suggests that these perceptions of future goals and plans, which are based on causal relationships constructed from past experiences and the projected future, are used in the present to guide current behavior. In the next section information will be presented by categories that emerged from the data in Selena's

recall of her past and present educational experience. These experiences will describe the knowledge and the relationships that have shaped her beliefs about the subgoals necessary to finishing high school in order to pursue her previously mentioned more distant future goals. To begin the investigation of the possible relationships between the past and the future, and the possible relationships to the present, Selena was asked in the second interview about her current decision to attend the alternative school.

Alternative Educational Decision

Selena's description of the future goal of finishing high school seemed to reflect the subgoal to graduation as "keep on goin to school." To begin the inquiry as to the knowledge she uses to represent this subgoal in her plan she was asked why she chose to go to alternative school. In her rather lengthy response of explaining how the decision was originally made she revealed her knowledge about herself, and her previous academic experiences.

I'm in alternative school because that principal said I couldn't go to her school, cause when we were filling out the papers, and she said while we were filling out the papers, then do you know your grades? I flunked 7th grade because we always moved and uh, we would have 2 weeks off or a week. We had some days yes, and some days no, and we would have to get out clothes and all that and we couldn't find what to wear, and uh, she said "do you know what your grades were in 7th grade? And I said no because I don't remember, because I didn't get any of my grade cards. I don't think my mom got it. The principal called that school, they said, the secretary said I didn't be there since Sept. But I went til November and the principal said if I didn't go to school there why should she believe that I would come to school here. I told her that I'd be comin school here. In the other town there was a mall and lots of places to go but I'd be comin here because to meet friends and there's no place to go. Then she got mad and said I would have to go this other school for special program for kids. Then we went to the library where the special program was

and met Mrs. C.

Selena perceived that the principal, based on a lack of understanding of why she did not know her grades, made the decision for her to attend alternative school. It appeared that at this point Selena was not aware that she had flunked 7th grade. When accessing Selena's cumulative file the only records were an immunization record and one Iowa Test of Basic Skills. The Iowa test had been administered when she entered her present alternative setting. The story of her attempted transfer to the middle school and her file suggested that Selena might have little knowledge about her actual performance in school. When she was asked what kind of student she felt she was and how she felt about herself as a student she replied, "well, my teachers always said I was a good student." This statement suggested the role teachers played in Selena's education.

Past Teacher and Student Interactions

In the first interview Selena began her free recall of her past educational experiences with the frequent and detailed descriptions of her teachers and her interaction that she had with them in the classroom. She described her teachers by ethnicity, gender, physical characteristics, grade or subject taught. Each of these teacher descriptions was followed by, "and she (or he) was really, really nice." This suggested that there were important meaningful interactions between herself and teachers. Her past educational experiences revealed the knowledge that she might have used to make judgements of ability and progression toward finishing school.

When Selena recalled her past interactions with her teachers she proudly told what past teachers had said, “they said I was good in math.” and “he said I was the best student in his class because I didn’t talk and I did my work.” We might assume that this feedback was important to Selena because her parents moved frequently preventing adequate reports of grades, plus, Selena possibly lacked parental feedback on daily work. Selena stated, “no, they couldn’t help me with my homework because they couldn’t read English.” Selena’s knowledge of her teacher’s feedback, her family’s frequent moves and their educational background interacted to put Selena in the position that she might have depended on teacher’s feedback to make ability judgements, and she judged teachers as nice by their positive responses to her performance. We might conclude that teacher feedback was a primary factor upon which ability judgements were made. The instructional setting the teacher provided seemed to be especially important to her too. She stated:

He was my language arts teacher, I asked him questions because he talked soft so everyone keep on workin, and he would let us work in groups and if I didn’t know somethin I could ask someone in the group and if they didn’t know, he would come around and ask if we need help and one of the kids would ask him.

My teacher who was married with the Mexican, and then when she would give us work and I needed help she wouldn’t tell me in front of the class because I don’t like when she talks to the other class, I don’t like to do it on the board for everyone. And she would take me out of class, like social studies and take me to her room and where she would teach me what I didn’t understand.

These stories implied that the teacher’s approach to her in the classroom

during instruction was another factor in the past that influenced her school behavior.

Selena's stories began to reveal the interaction of the factor of peers at school, and how it might have influenced her school attendance and how she completed her work in the past.

Past Peer Interactions

These stories revealed the type of impact that school peers had on her school attendance and her completion of her daily tasks. She relayed these stories of her perception of her school peers and the interaction of her teachers regarding her peers:

My 4th grade teacher, the tall black one I was telling you about, he was real nice too. He came to my house to talk to my mother. He said he would talk to the kids. I told my mom I wanted to go back there because the teacher was goin to talk to the kids. I didn't go to school much over there because of the kids.

And we had this one thing we did every week-every day, if you were good you got this blue label with your name on it, and if you were good you got one and you got to eat with the principal, she was Mexican, and she was real nice too. And I got to eat with her almost everyday. And I really liked it. I didn't want to eat with the students and kids, I don't know why, because they picked on me, I don't know why, I guess because I was Mexican, they didn't like me or something. I went back to visit her too, when I went to see (once again recalling another really nice teacher by name).

These stories indicated that Selena might not have only depended on teachers to provide feedback for ability judgements but she also depended on them to provide the setting that influenced her school attendance and the setting in which she could complete her work. Her statement that "I guess it was because I was Mexican" suggests that she believed she was not liked because of her ethnicity, and suggested

that she perceived that her peer's responses prevented her from completing her work. Selena described herself as, "I'm really, really shy, and I don't think they'll like me or something." She went on to say, "because I really don't like to speak to other people." "Whenever I don't like to know some of them I get embarrassed." She went on to tell:

And all the kids that I would maybe be around, sometimes I would talk to them, once in awhile, and they would laugh at me and said I was "nothing", that I was Mexican trash. The kids would make fun of me and throw paper at me. I didn't feel good in there, with all those kids. I just knew two Mexicans. There was just me and my sister, and some boys, just a few girls. But I didn't really like to talk to them others. I liked to play kick ball with them at recess and everything, but I didn't like talkin to them or anything.

In this statement she had identified that teachers provided the opportunity to avoid peer evaluations. Selena perceived that she her peers evaluated her by ethnicity, and apparently perceived language as a factor that identified her ethnicity which caused her embarrassment. In her future goal statements she stated that "you just have to do what the teacher tells you to do, so you can finish school." This implies the idea that successfulness in school is related to following the teachers rules and instructions. This would not only include the completion of work but also the successful completion of work. To begin inquiry as to how she might accomplish this she was asked what subjects she liked or disliked.

Past Subjects Liked, Disliked

When she was asked to recall what subjects she liked or disliked in the past she stated, "I don't know what I didn't like but I didn't like reading." "I liked it when the

teacher read to us, but I didn't like reading." Selena reported in regard to her learning to read, "no, they didn't have anyone to help me, just had to learn by myself."

Past Obstacles and Strategies for Classroom Work

To help overcome the obstacle of reading to complete homework as the teacher would expect she reported that she used the following strategy to meet teacher expectations: "my sister knows how to read, if she couldn't help me then I would tell my teacher the next morning and I would do my homework at school." This information implied that she had developed a strategy to overcome reading at home, and if the teacher was really nice and provided her the opportunity to avoid embarrassment she could then ask her teachers for the help she needed.

When Selena was asked what was the first thing that she could remember about school she described a task that she came to value through her teacher's approval for her successful completion of daily work. This appeared to be what she came to perceive as the most important strategy to completing her work successfully for teacher approval. She told this story:

I liked coloring, like those sheets they give you, color the hat of the clown blue. I liked those. Like the direction sheets because my teacher always told us it would help us to know how to follow directions, and when we didn't follow directions she would give us one of them so we would know how to follow directions. I really liked to color them. And when I would finish my work I would tell her to give me one of those and she would tell me I didn't have to follow the directions, but I would anyway, because I like to. She always gived me 100s because I colored it really good or somethin.

This supported the perception of the important role teacher's played in

Selena's judgements of ability. The repeated statements she made about praise from teachers indicated that Selena learned that following the rules, such as not talking, asking for help and completing work successfully was perceived as what caused school success. This was important to gaining teacher approval which in turn was used to make needed judgements of school success and progression toward the future. This emphasis on following rules for success even helps explain her performance on the Iowa Test of Basic Skills. The highest scores were in capitalization and punctuation in language, and rounding numbers and order of magnitude in math. These skills are developed and accomplished by applying rules.

The Iowa Test of Basic Skills was the only formal record of Selena's past achievement. The administration of this test only included the core subtests of reading, language and math. The test revealed that upon entrance to the alternative school that she was 13 years old and classified as a 7th grader. The vocabulary subtest raw score of 8 fell within the first percentile, indicating that 99% of students her age and grade equivalent were performing better than she. Her reading comprehension raw score of 10 fell within the 5th percentile which also fell in the low range of national percentile ranks. Her spelling skills also fell within the low range at the 5th percentile. However, her grammar skills for capitalization and punctuation fell within the average to high range of the national percentile. She was at the 84th percentile for capitalization and at the 52nd percentile for punctuation. Usage and expression in language was at the 21st percentile. Math concepts and estimation fell at the 11th

percentile which falls within the low range of the national percentile ranks.

These scores indicated that her skills in vocabulary, comprehension, usage and expression, along with math concepts, problems and interpretation were below average when compared to the norm group. However, her usage of punctuation was within the average range compared to other students, and her capitalization was at least as good or better than as 84% of students her norm comparison group.. These results indicated that she lacked understanding of words, comprehension, usage and expression, which may have possibly interfered with her understanding of math concepts. However, she could apply rules of capitalization and punctuation to words, phrases and sentences, and her areas of strength in math were in the rules used for standard rounding and order of magnitude. The strategy of applying rules appeared to have been transferred to the completion of daily tasks and learning. The scores also appeared to be related to the subjects she reported liked and disliked.

The strategy of following rules appeared to be vital to completing work, gaining teacher's approval, and to Selena's perceived successful continuation of school. The only obstacle to applying this strategy appeared to be being embarrassed in front of other students, which she perceived as preventing her from completing her work. When Selena recalled her past school experiences she told about a conversation she had with her mother which supported this strategy to overcome the obstacle that she perceived her peers presented, she said,

My mother knew I was sad when I came home from school and she told me

not to listen to them, or tell the teacher or ask if I can go down to the office and do my work. Most the time she told me not to listen to them but if they talk to me to talk back to them cause if not they would be messin with me.

The stories that Selena recalled represented the knowledge she used of the interacting factors of behavior, personal factors and environmental influences which influenced her future plans. These interacting factors produced the causal relationships between herself, others and events. What was perceived to have caused the school events determined what Selena used to regulate her behavior to attend school, complete her work, learn, gain teacher's approval, and avoid embarrassment. The primary strategy to accomplish her past goals seemed to be the strategy of following rules. To describe the possible relationships between these past interacting factors, goals and strategies, and her beliefs about her present plans to continue in school, Selena was asked why she chose to return to the alternative setting this year.

Present Teacher and Student Interactions

When Selena was asked why she chose to return to the alternative school this year she said, "I came back here (alternative school) because I didn't want to go to that school (the public middle school), because I liked it here." The following statements were made by Selena as to why she likes alternative school, she said:

I like Mr. Jones and Mrs. C. They're really nice to us (she and her sister). Mrs. C said we were doing good, me and my sister. Mr. Jones says I'm real good in algebra, and I think sometimes I don't think I'm good at anything. Mrs. C said we are doing a lot better than last year because last year she said I talked to my Mexican friends, I guess because they were the only friends I had here.

Selena described Mrs. C's instructional approach in alternative school by stating, "and when we need help (she and her sister) ,when she has somethin to say she really doesn't talk to the whole class, she doesn't talk to everybody. Because no one is in the same grade. I probably want to graduate from here." Her descriptions of her present teachers appear to be related to her past teacher's feedback and classroom approach suggesting that she may still use similar strategies to gain teacher approval. In the alternative setting students have their own computer station to work. This also possibly contributes to her being able to ask questions of her teachers and her sister without the perceived obstacle of peers. These factors allow her to gain teacher approval, complete tasks successfully and continue to perceive herself continuing in school. Her past experiences of teachers feedback and instructional methods are related across the past and present.

In order to inquire as to how her present subject performance continues to shape her future goals and plans she was asked what subjects she liked or disliked in alternative school. She was also asked if she perceived any obstacles and what she does to overcome them, plus what she sees as most important to her present school performance.

Present Subjects Liked and Disliked

Her story once again began with a statement regarding reading, "I think it is hard for me to read. I don't know, sometimes I still have trouble reading. I can't pronounce the words and I can't read." She went on to explain how her sister can

sound out words. She said that sometimes she can do this but stated, “I still don’t always know what the words mean.” Selena also included vocabulary and English as subjects that were difficult for her. However, she said she liked geography because she understood most of the words. She said sometimes she had to ask Mrs. C, but she said she and her sister worked together and they had almost finished the entire book. What Selena perceived as not liked in the past seemed to now be perceived as difficult in the present alternative setting. She also continues to use her past strategy of asking the teacher for help if her sister can’t help her.

In regard to her present perception of math she said, “I like algebra but sometimes its hard and I have to ask Mr. Jones. I don’t know, at first it was hard but I think I got the hang of it now.” Math is the same subject of focus that she recalled receiving praise from teachers. Mr. Jones supplies her with support, and positive feedback, and provides the individual attention and the help she needs in understanding the rules needed in algebra to complete her lessons. This suggests that Selena is able to apply her past strategy of following rules on her algebra lessons and receives once again favorable remarks from her teacher.

Present Perceived Obstacles and Strategies

When Selena was asked what obstacles she presently perceives in completing her daily tasks at alternative school she stated the following subject specific obstacles that are related to her subjects that she disliked in the past and reported as difficult in the present, she said:

I tell Mr. Jones the books are better, like in algebra. I like it better in the book. It seems like it's harder on computer. Like the examples, the study part on the computer has it but, in the book you can go back and look, but the computer sometimes doesn't let you go back. I haven't figured it out. Sometimes the answers are right but the computer gives the wrong answer, because Mr. Jones and I were doing it together. In the book I go back until I understand it. I don't use a book in math anymore. Mr. Jones moved me to the computer, he is helping me, but I am behind, I did 2 tests, I made 90 on both of them.

The English is kind of hard. It gives you a blank, and it's kind of hard. I don't know the words, what they mean, and I can't spell the words for the blank, in the book it's hard too, I've only done like 3 lessons in English.

I had asked Selena how she was going to overcome her obstacles of, doing math on the computer and completing her English lessons. In the past she had recalled her strategy of following rules to complete her work through teachers providing the opportunity to avoid peers. She gave as her present strategies to overcome her obstacles as, "I'm going to ask Mr. Jones if I can go back to the books, I think I was learning more in the books, there's all the questions to answer and you have to go back and look for them, on the computer they give you the answers to pick." For completing her English lessons she said, "some of the words are like in Spanish and my sister tells me to sound it out like in Spanish and sometimes the words are alike in Spanish, and my sister, so that's how I am learning to read." I don't like to ask for help in English but I probably will ask Mr. Jones and Mrs. C." She went on to imply another strategy to learn to read she said, "we have to read all the books ourselves and read all the questions and write the answers." This suggests that Selena believes that she learns more from books because of the strategies she can use to complete her

work. In math she can go back and look at rules that apply, and the strategies she now applies in English appear to have been developed through practice with her sister, and by feeling comfortable with the teacher in asking for help from the teacher.

These strategies seem to represent the development of more effective strategies to learn, rather than to depend on the teacher to help her avoid peers so she can follow rules to complete her work. In the past following rules appeared to be what was perceived as necessary to school success. The strategies were related across time to the subjects liked and disliked in the past indicating relationships. With the obstacle of peers removed in her present setting it appeared that she had developed strategies for what she now believed was important to learn in order to continue to be successful and progress toward finishing school.

Knowledge and Relationships of High School to Future Goals

Selena was administered a survey which asked her to rate the importance of several future goals and the importance of her performance to reaching each future goal. The results of the Future Goal Survey are presented in Appendix B, Table 1. She was asked in the interviews what might be obstacles and strategies to reaching her more distant future goals of college, occupation, marriage and having a family.

Selena perceived that graduating from high school was very important and her performance on her classroom tasks in all of her core subjects was important to graduating. Her perceived obstacle to graduating from high school was returning to regular school or having a family. When she was asked what might be an obstacle to

her present and future educational goals she responded:

I don't know, I haven't ever thought about not goin to school. My boyfriend wants to go back there (to their previous state of residence) and work for that company cause he would make money, but then he, I told him I wouldn't finish school and I said I wouldn't go cause I wouldn't finish school so he said okay and we haven't ever talked about it again.

This statement was directed toward the barriers that she perceived in the past and would expect to encounter again if she returned to the same school as in the past. She strongly believed that the embarrassment in front of peers would prevent her from reaching her future goal of finishing high school. The strategy to avoid regular school and attend alternative school was also consistent with her desire to meet her family's expectations of finishing school, possibly furthering her education, gaining her mother's approval of marriage and getting a job to help support her future family. Therefore, finishing high school was related to all of her more distant future goals.

High school was perceived as a subgoal to the future goal of college. Selena rated the future goal of going to college as important and her performance in school as very important to reaching that goal. When Selena was asked what might be an obstacle to reaching this goal she indicated the expense of college. She made the statement about how she might overcome this obstacle: "just that you can get free money and when you finish you can pay it off. I really don't know anything else." Her present level of knowledge represented the relationship between finishing high school for college admission. With information provided by her stepmother she knew that college was expensive, and with good grades this money might be granted rather

than borrowed. With this knowledge she was able to realize that her present classroom work was important for college.

Selena rated getting a job as very important. She rated her performance of present classroom work in all of her core subjects as very important to getting a job. This rating was consistent with the knowledge she had gained from her family. She believed that an education was important in order to acquire a job that did not require hard physical labor. She also believed that an education would help ensure an occupation that would sufficiently help support a family.

Knowledge of her first mentioned future occupational goal of becoming a lawyer may have been considered through the comparison of her mother's lawyer and herself being fluent in two languages. Her statements concerning her present reading ability seem to be related to her perceived obstacle. This goal may have been abandoned due to the obstacle that she has constructed through her school experiences with reading. Her statement, "you have to read all them books" seems to be related to her perception of her present ability to read. Another factor may be the number of years that would create more expense for college. In her first statement of her knowledge about college itself, she said, "I know you go two years or four years." In reference to becoming a lawyer she stated as an obstacle, "I think you have to go seven years."

Her consideration of being a physical therapist may also have been considered based on her knowledge about how being fluent in two languages might be beneficial

in an occupation. Her direct experience of helping her boyfriend with his therapy at home might have provided perceptions of her possible accomplishment of this goal. However, she seemed to dismiss this goal when she was told that therapists sometimes have to do unpleasant tasks. Evidently the description of unpleasant tasks provided information that shaped her decision to abandon this goal. These occupational goals were perceived as possible based on knowledge gained through direct experience with her mother's attorney, knowledge of the benefits of ability to speak two languages, and direct experience with physical therapy. They were abandoned based on past educational experiences in reading and knowledge provided by someone else about unpleasant tasks. This indicated that she used her knowledge to construct cause and effect relationships between, herself, others and events. With her present knowledge she possibly could not construct nor develop strategies she believed would allow her to overcome the perceived obstacles. Subsequently, she decided to abandon these goals.

In her statements of her future goal of becoming a stewardess she had constructed relationships between herself, school, physical characteristics and the tasks and responsibilities of the job. There appears to be a relationship between her past and present experiences in reading, understanding and speaking the English language. Her present knowledge about the special school that stewardesses attend had lead her to believe that she would learn to read and perform the task from a prepared script. Also related to her past experience were the interacting factors of language and peers.

In the past she might have avoided peer interactions because of her language, which embarrassed her. Her direct experience provided her with the knowledge that in this occupation she could avoid possible embarrassment as the reading task is perceived as being performed behind a curtain.

When Selena was asked what might be an obstacle to becoming a stewardess she relayed, “you have to travel a lot, and can’t be home all the time.” This statement indicated that she was using her knowledge of family and home, and her knowledge of being a stewardess to construct what might be an obstacle to pursuing this career. I inquired as to how she thought she might handle this situation. She once again relayed information from the restaurant manager’s daughter. She not only provided her knowledge of family and stewardess but also had gained and constructed knowledge of the strategy that she planned to use to overcome the coordination of these goals. She stated:

I don’t know, that girl told me you can do a day work. Go from here to that city and then from that city to here and finish the whole day work. She said I could talk to the manager when I have babies and tell him that’s what I want. She said he would probably want me to be like from Texas to Mexico because I speak two languages, and I think my boyfriend will follow me anywhere, because he doesn’t like it here, he’s used to the cities, not like here.

This information suggests that she has constructed relationships between fulfilling the daily responsibilities of family such as: household duties and caring for children and her career. Her present knowledge was quite sufficient for both future goals. With this knowledge she was able to resolve the conflict between family and

career with a strategy provided by the restaurant manager's daughter. Her possible perception of being able to accomplish her occupational future goal and resolve the conflict to family was strengthened with her previously constructed relationship of the benefit of her language abilities.

When Selena talked about how her school work might be important to becoming a stewardess she stated:

I don't know if you really have to know math to be a stewardess but everybody has to know math cause if they know you don't know math they will charge you more. You have to know how to count and you have to know how to count to get a checking account and you have to know how to multiply and divide.

From previous information Selena had made the relationship between the need to learn to read and communicate and being a stewardess. This suggests that Selena uses knowledge from her past and present educational experiences to construct a relationship between her present classroom work and her future career. In the possible relationship between math and being a stewardess she wasn't sure how math applied to this occupation, however, she had knowledge as to how math applied to daily family living.

Selena identified a strategy for a long term commitment to marriage. Getting to know your spouse well was believed to prevent divorce. Knowledge from her experience of not being able to acquire citizenship because of her parents divorce may be perceived as preventing her from raising and educating her own family in the United States. Based on her story we might also conclude that a successful marriage depends

on such house hold duties as cleaning and cooking. In other words, she believes that this is an instrumental subgoal to gain the approval of your spouse's family. In an additional story we saw that marriage was an event that occurs at an earlier age in Mexico than in the United States. She stated that she and her boyfriend wanted to get married but her father said, "that I was too little." This might indicate that she uses knowledge of her ethnic heritage and her knowledge of the customs in this country. Her parents' insistent teachings of the value of education seems to be the factor that interacts between her cultural knowledge and marital customs in the United States. Her only obstacle and the strategy to overcome her future goal of marriage was found in this statement: "after I finish school I'll have to ask my mother." for permission to marry. This obstacle and strategy represent her knowledge of customs and her knowledge that finishing high school has financial importance to marriage. This is represented by her belief that successfully completing high school is an important subgoal to gaining her mothers approval for marriage. This relationship suggests that Selena perceives that present school work was instrumental to accomplishing the goal of finishing high school for marriage.

Selena rated the future goal of having a family as very important. She also rated her present performance in each subject domain as very important to reaching this goal. In regard to having a family Selena appeared to have knowledge of the important things a mother must do, such as teaching one's children. In her reported experience she continues to have the opportunity to care for young children and

strongly heeds her mother's teachings. She developed the skills believed necessary to having a family as: taking care of children, cleaning house and knowing what and how to teach your children important lessons.

The only obstacle to marriage is seeking her mother's approval after finishing high school. In the alternative setting her statements indicate that she will finish high school and gain her mothers approval. Her subgoal to a successful marriage and family was to please her mother-in-law. Taking into consideration her present active participation to contribute to the family, both financially and through daily household responsibilities, we might conclude that Selena senses successful progression toward her future goal of marriage and family. This suggests that she has developed strategies that she uses on a daily basis to fulfill her subgoal of pleasing her future mother-in-law.

Another future goal that Selena rated as very important was gaining social status. She also rated her performance in each of her core subjects as very important to reaching this goal. It may be that this future goal was related to the information her parent's provided about getting a better paying job to maintain the status to gain citizenship, and remain living in the United States. It also seems reasonable to include the knowledge she had about how her peers perceived her. She was referred to Mexican trash. This too may be related to a desire to overcome her perceptions of how others view her status.

Other future goals that Selena was asked to rate included: making money,

joining the military, and making a contribution to society. Joining the military was rated as not at all important but school performance for joining the military was rated as somewhat important. Parents and families of other countries probably do not have knowledge to share about the opportunities afforded by military service, however, she may have concluded that school should be at least somewhat important.

Making money was rated as important. Selena's contribution to the financial support of family provided knowledge and opportunity to gain substantial information in the management of money. Selena's interview suggested that they very carefully manage what money have, and she seemed to have confidence in her ability to manage it. Selena rated the importance of school performance as important, not very important, yet important to making money. Although, the importance of getting an education to get a better paying job had been stressed by Selena's parents, she had seen them adequately support their families. Selena's parents have progressed in the quality of jobs in the United States by working hard. Selena had obviously seen many family members and friends without educations make money and support their families.

Making a contribution to society was rated as important and school performance was rated as not at all important to this goal. In her interview she revealed that members of the Mexican community support each other in the larger community. Selena had obviously witnessed many family members and members of the Mexican culture making valuable contributions without having acquired an

education.

Present Perceived Instrumentality for Classroom Work

When Selena was asked to state what she felt was the most important thing to learn each day at school she stated, "Everything, because everything at school is important to do, so you have to do it. If you don't do it you will never learn to do nothin." She also felt that talking to other people was important. She said, "Like in other school (public middle school), you get to talk to other people and like you have to learn to speak to other people so you can start learning and stuff." Then she went on to say that her English is important to learn, "cause you have to know how to write properly, and how to speak, you know, speak right, don't sound like (mentioned name of another alternative student)." Learning to understand and speak English is an apparent instrumental task each day at school for Selena. Again we see that what is perceived as instrumental is related to both subjects liked and those considered as difficult for her.

When Selena was asked what was instrumental to her finishing school she stated that:

Learning to read is important, I think math, everything at school and home is important to learn. Everything at school and home is important to learn. Everything, clean the house, everything is important. If you don't clean up before you go to school they might talk about you. Everything that your mom teaches you is important like my mom taught me to clean up the house and how to pick-up after myself, and that everything is important. Everything in life is important.

These statements represent the many relationships Selena has constructed

between the importance of learning at school, especially reading and it's relationship to "keep on goin to school" and her presently perceived future occupational goal of becoming a stewardess. Finishing high school is believed instrumental to furthering her education to obtain this career. This particular career is important because she believes that with this career she can meet her goal of a marriage that won't end in divorce, and help financially support her family.

The interacting factors that influence the cause and effect relationships are related across time. Her past knowledge that her spoken language caused embarrassment continues to be a primary factor that she perceives as influencing school success. She perceives that learning to read, understand and speak the English language as very important to learn during her present tasks. She also said that "everything was important to learn." Her interview, her ratings on the survey concerning the importance of future goals and the importance of her performance in her core subjects support her newly developed strategies to learn in her all of her core subjects.

Perceptions of Ability of Present Classroom Tasks

Survey questions concerning perceptions of ability on present classroom work provide some insight into her beliefs about her ability to successful complete her classroom work and progress toward the future goal of finishing high school. The ratings indicated that she usually felt she could understand the material presented in all of her classes and was confident that she had the ability to understand the ideas taught

in each class. However, she was not confident that she understood as well as others in her classes, or that she could perform better than they do in all core subjects, however, she didn't report that she possibly used comparison with peers to make judgements of her own ability.

The knowledge that Selena cognitively represents indicates relationships between the past, present and the projected future. These relationships help Selena identify what is instrumental to pursue in present classroom work to help her reach her future goals. Her statements of her present perception of ability in school were revealed in this statement. She said:

I think I am learning. I am getting better, and I like to come to alternative school cause I really didn't get nothin done at regular school, I would sit and try to do my work but kids were always talkin and I sit in the corner and try to do my work. I think I will get my work done in alternative school.

Her present perception of her ability to accomplish her subgoal of "keep on goin to school" and finish high school, was reflected this statement, "I'm sure I'll get my diploma." The knowledge that produced her beliefs about how to go to school shaped her goals for present classroom work. Her perceptions of ability for present classroom tasks and her perception that she will accomplish finishing high school regulate her present academic behaviors through the goals she perceives as instrumental in classroom tasks.

Summary

Based on her knowledge Selena constructed relationships between herself,

others and events across time. The relationships were revealed in her statements of future goals, subgoals, past and present experiences, and obstacles. The content of future goals, subgoals, experiences and obstacles were consistent across subject domains, subjects liked and disliked, and with teacher and peer interactions. The strategies that she developed to overcome obstacles and accomplish subgoals were consistent with what she reported as instrumental to pursue to accomplish her future goals. Graduating from high school was perceived as instrumental to her additional future goals of getting a job, getting married and having a family.

We might conclude through the comparison of the past and present that her decision to return to alternative school was based on the importance of teacher feedback and the individualized instruction in the alternative setting. Past educational feedback was important for needed judgements of ability to continue to go to school. In order to receive this feedback she had to depend on her own strategies, or opportunities that her teachers provided to help her avoid being embarrassment in front of peers. Pursuing the goals to avoid peers and please the teacher were believed to be useful strategies in her past tasks to continue to go to school. With new strategies Selena now appears to be more focused on learning subject content but still wishes to avoid peers. However, in her new setting at alternative school where instruction is individualized she has had the opportunity to spend more time learning than avoiding peers. Her newly developed strategies to learn and the perceptions of ability acquired through experiences at alternative school have resulted in newly

developed subgoals and relationships of instrumentality and strategies for present classroom work. Her perceptions of ability for present classroom tasks and her perception that she will accomplish finishing high school regulate her present academic behaviors through the goals she perceives as instrumental in classroom tasks.

Motivation Profile: Case Study 1

The model would predict that what is perceived in the present task as instrumentally related to future goals influences the types of goals pursued on present tasks, which in turn influence cognitive engagement, performance and self-regulation. The importance to Selena of specific future goals would be expected to influence what she perceived as instrumental to reach her multiple future goals. Selena felt that learning to read was important to learn at school. She also stated that "everything was important to learn at school." The types and levels of goals for present tasks and the valuing of subjects based on the perceived instrumentality of learning to read and the subject content of her core classes would be predicted to influence her level of cognitive engagement, performance and self-regulation. Exploring Selena's intrinsic, extrinsic and future valuing should give insight into what she perceived as instrumentally related to her future goals. The results of Selena's survey can be reviewed in Appendix B, Table 4.

Intrinsic and Extrinsic, and Future Valuing

Selena's responses to items dealing with intrinsic, extrinsic and future valuing varied across subjects; however, she reported that she perceived all subjects valuable. Selena reported that she agreed that she planned on taking more classes, even if not required in each of her core subjects. She also perceived herself as in usual agreement that she was interested in learning more about each of her core subjects and was in definite agreement that this was true in science and history. However, she found

learning English more satisfying than learning math, science and history. She also reported she usually enjoyed the challenge in each of her core subjects. She strongly agreed that all subjects are valuable to the future. She agreed that she needed to know more about each subject and that knowing more about each subject would help her in her future career. Selena's ratings for intrinsic and extrinsic items ranged from usually agreement to agreement. Although there was almost equal agreement between the intrinsic and extrinsic valuing of all of her core subjects there were differences. She reported that she found science and history more interesting than English and math but agreed that these were equally important for the future and agreed that all are valuable to her future career. The results for future valuing were at the high range of the scale and indicate an association between the future valuing of all her core subjects and her interests for the future.

The types of valuing of subjects was related to what she reported as subjects liked in her interview, history and world geography, and what she found as difficult, English and math. She reported in the interview that she and her sister read all the text books for history and geography, and wrote all the answers in English. With learning to read perceived as instrumental and the improvement of reading and writing skills the gain of knowledge in these two classes possibly enhanced her intrinsic interest. English was possibly perceived as the most related to her learning to read and learning this perceived difficult subject matter may produce the most positive affect or satisfaction due to its importance to her future education and other future goals.

Repeated observations supported her valuing of subjects. The order in which she completed her daily work began with history, geography, then science, English and math. Observers rated this a typical order of approach. It appeared that Selena might have begun each day with the subjects that she felt improved her reading skills. She stated that her strategy to overcome the perceived barrier of computer learning was to ask the teacher to go back to text books because she felt she learned from them more effectively. This was indication of her monitoring and evaluating her learning to read. Through Selena's family and school experiences she had developed a path of subgoals for high school and toward her future goals. The knowledge she revealed about her future goals and what she stated as strategies reflected what was instrumentally related to the valuing of specific tasks. In other words, present tasks that cue the opportunity to improve reading are likely to result in a gain of knowledge and enhance intrinsic valuing and the likelihood of perceived instrumentality to other extrinsically valued subgoals and future goals. As the model predicted perceived instrumentality influenced the valuing of specific subjects, valuing in turn would be predicted to influence the types and levels of goals chosen for present classroom tasks.

Immediate Classroom Goals

As an indication of the types of immediate classroom goals that Selena may be pursuing she was administered the *Introductory Survey on Learning* which asked her to rate her agreement with reasons why she does her present classroom work. The results of this survey are listed in Appendix B, Table 5.

Learning Goals and Performance Goals. Selena's self-report on all learning goal items were at mid-range. This indicated that she usually agreed that she approached her present work with the intention to learn. Selena reported that she would usually agree that she enjoyed the challenge of each of her core subjects. She also reported that she usually liked attempting to understand complicated ideas and worked hard to understand them. She also usually agreed that she did the work in her classes because she liked learning interesting things.

Selena's adoption of learning goals was supported by repeated observations. She was observed as primarily motivated to learn all subject content. She was not observed as doing her work for incentives offered in the classroom. The observers said she always seemed to enjoy them, but they did not perceive working for incentives as typical for Selena. One observer made this general comment at the completion of his observations, "this particular student has a special drive and a maturity that will help an education to be obtained." These ratings and observations indicated that she usually did her present work in all of her core subjects to learn the subject content, however, she also reported additional reasons for doing her present school work which suggested that she pursues multiple goals.

One of the additional reasons that Selena self-reported on the survey for doing classroom work included the performance goal of avoiding looking bad. She agreed that in all of her subjects she did her work to avoid being embarrassed in front of her peers. She usually agreed that she didn't want to look foolish or stupid to her friends,

family and teachers. However, she disagreed that she did her work to look smarter than her friends. On all items concerning others' perceptions of her ability she strongly disagreed that she did her work because of what others might think concerning her ability. This level of response on performance-avoidance goals indicated that in addition to the mid-range of adoption of learning goals for all core subjects that she had a stronger agreement that she did her work to avoid embarrassment in all of her core subjects, but she did not do her work to look smarter than her peers. Obviously, her past experiences in regular school contributed to her avoidance of peer judgements, however, she did not evaluate her progression by outperforming them. Her focus was on learning subject content through improvement of reading, understanding and speaking English that was perceived instrumental for finishing high school and pursuing her other valuable future goals.

Repeated observations supported her present behavior and interview statements of her perceived instrumentality of social interaction at school. She said that talking with others was important to learning to speak English. She was observed conversing with other students six out of the nine observations, however, all observers rated this as untypical behavior. Observers' comments about her visiting with friends included: "in alternative school visiting is permitted and sometimes unavoidable"; "visits are usually short"; "visits with her sister"; and "will visit but is not a problem to completing her work." Considering her recognition that communication with others enhances learning and her present perceptions of ability in her improvement of reading

these may enhance her information seeking to develop new strategies for social peer interactions. Speaking with others is related to her occupational goal, which will also bring her status, citizenship and financial support for her family to stay in the United States.

Goals for College. Selena also agreed that she did her work in all of her core subjects because performing well was important to gaining college admission. She also felt strongly that she did her daily work because making good grades was important for college admission and scholarships. The results for adoption of these goals were at mid-range. This indicated that she is using her knowledge about college to help guide present classroom work. Her ratings also indicated that she strongly agreed she did her work to make good grades in all of her core subjects because this was important to college admission and receiving money to attend. Although her knowledge of college was limited she had sufficient knowledge to know that the expense of college could be curtailed by having good grades. Making good grades was perceived as instrumental to finishing high school, attending college and acquiring a good job to help support her expected future family.

Social Responsibility Goals. Additional reasons for doing classroom work also included her ratings that she strongly agreed that she did the work in her all four core classes because that was what school was all about. She also reported that she usually agreed that she did the work assigned in her classes because that was what the teacher asked her to do and she did it because she was supposed to do it. However, she

disagreed that she did her work for teacher approval or to avoid making the teacher unhappy. She also reported that she didn't do her work so the teacher would think she is smart. These goals are in conflict with her past goal to please the teacher, however, considering her more learning focused strategies and the ease of avoiding her peers in alternative school we might conclude that this setting had enhanced her focus on learning subject content.

Selena strongly disagreed that she did her work for tangible rewards, such as money from family. However, she usually agreed that she did her present tasks to meet her family's expectations and did not want to make them unhappy by not doing her present work and not continuing in school. Selena also strongly agreed that she did her classroom work in all of her subjects to ensure that she could get the future career she desired. Education was highly valued by her family. Education was believed to be very important to getting a good job that would enable Selena to gain citizenship and maintain her future family in the United States. These results were consistent with the valuing of subject matter, her adoption of learning goals and her perceptions that reading was instrumental to learning for college admission and scholarships and getting the career she wanted. These results also supported her perceived instrumentality of learning to read in order to learn subject content.

According to the model, Selena's valuing of subject content and the goals she had chosen for present classroom should influence the level of cognitive engagement she developed her classes. The results for her cognitive engagement survey items can be

viewed in Appendix B, Table 6.

Cognitive Engagement

Her level of cognitive engagement was typically reported by agreement that she worked practice problems and tried to analyze to see if they could be worked in different ways. She usually agreed that she hoped the teacher would eventually explain what she didn't understand and she agreed that she reviewed material for tests. However, she disagreed that she tried things in new ways. She also did not agree that it was typical of her to work several examples alike, check other questions for similarity, or to draw pictures or diagrams. She strongly disagreed that she classified questions by similarity.

These results indicated that she was most likely to work practice questions to check her understanding and review material, and depended on teachers to explain what she didn't understand. This suggested that she used both shallow and deep processes when engaging in present classroom tasks. These levels of cognitive engagement were supported by her strategy to ask teachers for help. Observations that supported this were consistent with her strategy of asking teachers for help. During every observation she asked the teacher for help. Comments from all three observers were, "more likely to ask questions while using computers"; "this student will always ask questions; and "questions are asked for seeking to understand." The varied level of cognitive engagement may represent the difference between intrinsic and extrinsic valuing. Varied levels of cognitive engagement may also represent the

past successful use of the strategy of asking teachers. Cognitive engagement may be influenced by knowing that the teacher will explain if Selena perceived that the task was difficult and lessened the likelihood of a deeper level of cognitive engagement. The strong perceived instrumentality of learning to read to gain knowledge during present task work may be the primary factor for successful classroom work. Successful completion of daily work would help ensure successfully completing her educational goals to ensure getting a job and supporting her future family.

Also, in Selena's case, the level of cognitive engagement may depend on whether she was using text books or computers. Her present perception was that she could not learn as much on the computers. She may not be able to use her new strategies as adequately on the computer as in text books. She actually may have difficulty applying these strategies on the computer due to the fact that the computer does not always allow the student to go back and review the same example several times. Therefore, she may use shallower levels of processing on the computer than when studying in text books, however, she stated during one interview that science was the easiest to study on the computer. This particular subject was rated as more intrinsically valued than English and math. This suggested that the computer-based lessons for science may have been accomplished by applying her new strategies, or the lessons primarily contained lower levels of knowledge which could be acquired by shallow levels of processing. This would enable her to judge herself as progressing in knowledge of science.

The results of the level of cognitive engagement were as the model would predict. Based on her knowledge she developed strategies to study which support her efforts to gain knowledge through her improved reading and understanding of English. Gaining knowledge through being able to read the material would be perceived instrumental to her additional future goals.

Persistence and Effort. Her persistence on her classroom tasks also supported her learning goals, and subsequent level of cognitive engagement. Selena reported that when she ran into difficulty she would usually ask for the answer, but she does not guess at answers. However, her report indicated that she usually would keep working until she understood or hoped that the teacher explained it. She was not likely to give up and go on to the next question and she reported she did not hurry through her questions without checking for accuracy. Therefore, we could assume that asking someone for the answer was a last resort due to her belief that understanding the material was a subgoal to finishing high school.

In regard to her effort, she rated her effort in English and history as fairly high and her effort in science and math as extremely high. Considering her repeated observations Selena must feel like she needs expends more time and energy to understand science and math, or she could like science and math more and prefer to spend energy there. Selena did not respond to the survey item regarding the rating of her performance. The alternative setting does not give formal grades until the end of the year. It appears that Selena continues rely on her own judgement, or her teachers'

judgement as to whether she performs well or not.

From her previous responses concerning valuing and present goals, she stated that science was easy to accomplish on the computer and this had enhanced learning, judgements of progress and intrinsic valuing. In regard to math, her new strategies could not be applied to computer-based math and she found this difficult and unrewarding, yet important to finishing school and reaching additional future goals of marriage and family.

Repeated observations supported her reports of persistence and effort. Selena was never asked to stay on task during any of the observations. This was rated by all observers as very typical for Selena. One observer commented, “always stays busy.” Selena’s persistence and effort in her daily work were consistent with her reported levels and types of valuing, and in turn, valuing was consistent with the types of goals Selena chose for her present classroom work. As predicted by the model, future goals and subgoals, and perceptions of ability influence perceived instrumentality. These instrumental relationships reflect the valuing of present tasks and the types of goals chosen. The types of goals she chose then influenced cognitive engagement, persistence and effort as predicted by the model. These factors are predicted by the model to influence the self-regulation of present classroom work and regulation toward the future.

Self-Regulation. Based on the interview data Selena’s past, present and projected future goals and plans were interrelated. Her survey results indicated that

her present valuing of subject areas and her classroom goals reflected multiple present goals and relationships to future goals and plans. The reading and understanding and speaking English were perceived as instrumental to achieving the present classroom goals she believed she needed to accomplish her subgoals to finish high school, further her education, possibly become a stewardess, get married and have a family.

As shown in the results of the survey (Appendix B, Table 6) her self-regulatory behaviors for all subjects were rated similarly between disagreement to agreement. This indicated that she would do similar self-regulatory behaviors across all subjects. Specifically, Selena found it easy to establish goals for her present classroom work. When studying she most likely agreed that she took notes of the material and checked her answers with previously worked questions. She usually agreed that she made sure she understood the assignment and established a clear idea of what was to be learned. She also usually agreed that she organized her approach to studying and checked her answers for accuracy. However, she reported that she disagreed that she organized her study time as well as she should. These results indicated that her present goals of learning subject material in all of her classes regulate her behavior of taking notes and checking answers with previously answered questions. Her behavior of understanding and having a clear idea of what was to be learned in the assignment, organizing an approach, and checking for accuracy was usually common and was consistent with her self-reports of cognitive engagement, persistence and effort.

These behaviors were consistent with her strategies reported in her interview

data. She stated that her strategy to overcome the obstacle of computer learning was to ask Mr. Jones if she could go back to the text book in math. She stated that text books were better because you could go back and look at material and examples in the text, whereas the computer doesn't always allow this. Her strategies for learning to read included sounding out the words that might be similar in Spanish and reading all the books herself, with her sister's help. Additionally, working from texts required her to write all the answers in English to practice and complete tests, whereas the computer has multiple choice answers. This supported the idea that Selena monitors more successfully using text books. This would influence evaluations and continued motivation. These behaviors were consistent with theory, and the relationships found between these behaviors, intrinsic valuing and the adoption of learning goals for present classroom work and subsequent level of cognitive engagement, persistence and effort.

In order to better understand how Selena might regulate her behavior in alternative school to meet her present goals at school, she was asked what she does on a daily basis to help reach her future goal of high school. She said, "I just come to school every day and do my work. Just come to school and do my work, that's all. I just work as hard as I can and do all the work I can." This statement suggested the use of a volition strategy to manage her daily work.

Repeated observations indicated that Selena was very consistent in her management of her coordination of the subgoals she pursues outside of school, such

as home responsibilities and a job. She must coordinate these additional responsibilities to attend and apply her self-regulatory behaviors on her classroom work. Observations by the two alternative teachers and me indicated that Selena arrived on time eight out of the nine observations. The day she was late one teacher observer noted that she had just begun working at the restaurant. Arriving on time was rated very typical of Selena on a daily basis. Observations also indicated that she always promptly began work upon arrival to school, one observer noted: "does a great job in this area." Observers' ratings indicated that she also had her supplies ready for her work. Observers' comments in this area included, "Selena is always prepared and very neat"; "almost always gets supplies and goes right to work, shows self-motivation"; "always has things in order." Observations also indicated that each day observed she returned promptly to work after breaks. Selena was rated by all observers as very typically returning to work immediately after breaks given by the teachers, and by the breaks she allowed herself. One observer's comment was, "Selena follows instructions real well."

These observations indicated that Selena arrived on time to manage her daily behavior according to her stated strategies. Her behaviors for daily work could be viewed as volition management to regulate her daily behavior to follow the rules of school and the teacher by attending and completing her work. In the alternative school she felt she would be able to accomplish her subgoal and finish school. This situation enhanced the anticipation of graduating and she could perceive delaying her

future goal of marriage and having a family, and also meet family expectations for her to finish school and get a good job. The combination of volition and delay of gratification strategies seemed to help Selena manage her daily attendance and job, her present classroom work, and aides in the coordination of reaching her multiple future goals. According to the model these valued and expected future goals should influence present achievement.

Present Academic Achievement

Selena self-reported various reasons for doing her academic work. Her goals included: learning, performance - avoidance, college admission and scholarships, social responsibility of attending and completing her work as her teachers ask, and meeting family expectations for education. Her intrinsic, extrinsic and future valuing of subject content suggested that she does her work for both interest and value to her future. The opportunity to pursue improving her English skills appeared to be the cue in present classroom work for which Selena directed her attention. Based on her present knowledge reported in interviews, surveys and observations learning to read, understand and speak English was perceived as instrumental to achieving her subgoal of continuing in school, graduating, furthering her education and acquiring a job, which in turn was important to marriage and having a family. When the opportunity to improve her reading skills was not available, she may have done her work to meet other goals (e.g., get good grades for scholarships or meet family expectations) however, learning to read was the most important task for the future. This influenced

her valuing and choice of goals, cognitive engagement, persistence and effort and self-regulation. According to the model, these behaviors should influence her level of achievement.

Selena's present academic achievements included: the required one half credit in State history and the credit in World Geography. These subjects were completed in text books. In order to receive a credit for each of these classes she had to complete all chapters and assignments. In World Geography she completed 47 chapters. Each course included a final test with at least 200 short essay questions. Through computer-based programs she had mastered 67 lessons in Physical Science and 36 lessons in English to complete her course credit. Her computer-based instruction profile indicated that she completed only two lessons in Algebra. She had since asked her teacher and had returned to the text book to finish this credit.

The perceived importance of reading, understanding and speaking English supported her achievement. She typically completed subject areas according to the opportunity to learn to read and apply her strategies to learn. State history and world geography were completed first on a daily basis, and were the first credits she earned. Science was completed on the computer. These subjects were more intrinsically valued than English and math. English was completed due to its instrumentality to finishing school in general and for the continuation of education to acquire a job. Math was perceived as difficult on the computer. She could not as easily go back on the computer to look at examples, or apply her new strategies to learn. She has since

asked Mr. Jones and has moved back to the text book to complete her math credit.

Selena's rating of the level of importance of all the future goals and importance of present school performance suggested that her knowledge helped her identify instrumental relationships between present classroom goals, subgoals and future goals. Instrumentality guided and directed her choices of subgoals to education. Selena regulated her daily behavior toward her expected future through her valuing of her perceived instrumental relationship of reading to gain knowledge in order to accomplish her path of subgoals to her future goals for education, marriage and family.

Case Study 2

Case Study 2: Goals and Plans for the Future

J. R. is a 16-year-old Cheyenne-Arapaho male. He lives with both biological parents and has a younger brother and sister. His grandparents, who reside in another Midwestern rural community, have been significant care givers in his life. J.R.'s parents have separated several times in the past, during those times of separation, he lived with his grandparents. In the Cheyenne-Arapaho culture it is customary for grandparents to be primary care givers. I have found through my profession as a counselor that the status and position of a grandparent included the responsibility of providing care for family members beyond adulthood. J.R. described his living situation at his grandparent's home with this statement:

That's when my mom and dad was split up, I lived with my grandma. My cousin didn't like her mom and dad so she lived with my grandma. My other cousin she just didn't care, so she was livin with grandma.

J. R. told of the additional family members his grandparents provide support.

He said:

My grandma right now, three of her boys live with her, one is in their 30s and the others in their 20s. My uncle that was in the Army, he lives there, my grandma pays his bills. He just hangs out on the streets now. He's all the time braggin, he's pretty cool though. My aunt lives with my grandma too, down there.

Although, in J.R.'s interview he indicated that he perceived his immediate family living situation to be much different from other families of his cultural heritage.

The difference being that his immediate family lived alone in the home with primary care given only by his biological parents. J. R.'s perception of why his family living situation is different appeared to be based on his parent's having jobs and his mother's continued education.

He reported that his mother had always worked outside of the home, but is not presently working because she was attending a vocational school, and that she would finish this May. She had graduated from high school and attended college three years before marriage. J. R. stated that she had told him she wished she had finished. He couldn't report her present focus of training, but did report, "studying, that's all she does," and included the remark, "all the time." He said, "this evening she was studying."

J. R. reported that his dad didn't graduate from high school, however, he made several statements about his father's job. He reported that his dad works in the oil field, and that he works from 5:30 in the evening to 4:30 in the morning. J. R.'s statement, "he (his father) doesn't want me to have to be workin in the oil field " seemed to indicate that J.R.'s father does not want him to have to work at a hard job with unusual hours. J.R. also told about how his dad wished he could make more money. These comments indicated that J.R. felt like his father wanted him to have a better job and make more money when he becomes an adult. J.R. seemed sensitive his family's financial situation. He said his parents, "owe debts, but they're trying to build their credit up and everything." He went on to say, "they want to buy that house

we're livin in now for my sister and I." This statement seemed to represent to J.R. the desire he felt his parents have for him to be successful in the future.

The perceptions of the importance placed on education in J. R.'s family seemed to be based upon his knowledge about his own family and of others' of his culture. J. R. could report on the education of his extended family member's education. He said that two of his aunts graduated from high school. He said that he felt that these two aunts graduated by, "not messin around, doin their work, keepin their grades up." He reported on the other extended family member's education that presently live with his grandmother. He said:

One of my uncles that didn't graduate was a navy seal, the other in the army. They just hang out on the streets now. They're worthless, that's why I don't want to be like them. My cousins dropped out before high school. She quit school, one quit school when they was in the 7th, the other when they were a freshman. I don't know anyone who graduated. None of them have.

He went on to describe how he felt education had influenced his family member's lives, he said, "I've seen what it's done to my family. Can't even take care of their own kids. Ain't got no jobs, that's the way my uncle is, can't even take care of his own little girls."

J.R. definitely seemed to relay that he felt that his immediate family was different because of his parents' willingness to work, get an education, and support and care for him and his brother and sister. Unlike many family and cultural group members, J. R. stated, "my parents take care of us." Support for the notion of education as the factor causing the difference between his home and other cultural

member's homes was revealed in this statement, "My parents say if you ever quit school, don't even come back to this house." One statement that J.R. made several times throughout his interview was, "I don't want to be a burden to my parents." This was obviously based on him seeing his grandparents and other cultural member's grandparents continue to support family members because those family members had not finish school.

As stable and proud as J.R. reported his family to be, he came to one interview with doubts about his family and the possible consequences to his education. The story J.R. told revealed his perception that his family too could possibly experience a separation that could disrupt his family's successfulness. He painfully relayed this story:

My dad got paid last Saturday and he left home. He left home in the evening with all his money and when he came home he had spent almost all of it from 6:00 to 12:00. Somebody dumped him out, I was talkin to this one dude, askin who was messin with my dad. I told him I would take him out if he be messin with my dad. He said he didn't want no trouble with me. It was the same guy who beat up my uncle and got him in jail. It's the first time I seen my dad drink in a long time. I've seen him drink a beer or two but not get wasted. I see it as more of my dad's fault now, but they told me he wanted to come home, at about 9:00 and they told him they were goin to this other town and he could just go with them. And he didn't get home until after 11:30 and I was the only one at home. I saw the car out front, I started to go out and bust the window out of that car after my dad got out. But I thought about it and thought a bunch of them might be gettin out of the car and come in my house so I stood behind the door with a knife, but no one came in but my dad. I confronted him and what he was doin. He didn't know I was in there, he just looked at me funny, then my uncle came in. I didn't ask him again, I respect him too much. I don't care, I don't feel like he's bad, it's not like he's bad, he, it's just somethin bad he did that one night.

J. R. seemed to resolve the issue of what his father had done, although, throughout the interview he made statements as to what would happen to his education if his family split up over the incident that occurred that night. He said:

I don't know what I would do if my family split up. I don't know. If my family splits up I'm goin to grandmas'. I'm not stayin here. I'm movin back down there at grandmas' then I'm not comin back. Just me. I'm livin down there with my cousins. At the end of this school year I'll be 17, school is out on the 8th, I turn 17 on the 27th of May. I'll be gone. I told them (parents). Well, they said it would be my choice, but they told me that I'd be comin back. I won't be back, they may be movin down there anyway. My parents say you can't quit school, I say when I turn 18 I'll move out, they say you can't, they said no you're not. I tell them I can, they say that if you're 18 and your still in school your parents have the right to say if you can leave or not. That ain't true. If my family splits up, my dad will be movin there too. There's one person that would make me go to school, my grandpa. My grandpa and my grandma would. Especially my grandpa though, he's strick about that. He's changed, about four years ago, he used to be like them (his uncles), he's a lot different now. I guess he got older and wiser, I guess.

After a long pause J. R. finally made this statement,

I don't know, all I'm tryin to do is keep my family together. If my family spilts up I'm goin to grandma's. If it does thats whats gonna happen. I wanna stay. I'd loose everything. I'd probably be drinkin and drugs if I went up there.

He again paused for quite awhile indicating the importance he placed on his family and of his concern about his education. He went on to say:

I don't know, cause I gotta a lot of friends down there, Some of my best friends are my cousins, because we all grew up at my grandmas', all my cousins live there. See, most of my friends I have here are, know how I am about fightin, all my friends down there just party all the time. They never get mad at each other. Down there everybody down there parties, but nobody, they don't fight, there's no danger down there. There ain't no gang members down there, maybe a few, punks. If I go down there to grandma's I know I won't finish school.

This statement implied that J.R. not only considered his perceptions of family and cultural educational outcomes as influencing his continuation in school, but also the cultural peer group. His cultural peer group happened to include extended family members. His confusion and conflict between his immediate family and his extended family's and other cultural member's educational backgrounds were revealed in this statement:

I don't want to be a burden to my parents. I know I have to have it (education) to get anywhere. Because I want a good education, so I don't want to be stupid the rest of my life. I want people to look up to me, I mean my uncles, don't no one look up to them. I don't want my life wastin away.

J. R. has attended the alternative school since it's beginning, this was his third semester. J. R. reported having moved frequently during his past educational experiences, due to his parents separations. He said, "I really wasn't in grade school here, well, here I was, but I was switchin off between here and grandmas' town. A lot, about 10 times. About every grade school year, leavin and comin back." He reported not until he went to middle school did his family stay in the present rural community. When J.R. began at the alternative school his academic level was evaluated. J. R. began his work at alternative school with 8th grade level work. He has since progressed to the freshman and sophomore level. J.R. actively participated in Life Skills class by taking part in class discussions, and also tutors elementary children in the tutoring program.

Future Goals and Subgoals

When J.R. was asked what he expected to accomplish in the future he said, “um, like what do I want to do in the future?” I explained how there is a difference between what we expect and what we dream about doing in the future. He had numerous options that he had obviously considered. Most of his possible future goals were based upon his perceptions of past family educational accomplishments and the cultural educational knowledge he had, that no one graduates. He responded to my question about future possibilities promptly by saying, “I know I want to graduate high school, but I don’t know about that, I probably won’t, but I probably will. I hope. Get an education.” This statement seemed to indicate some hesitation in his belief in graduating from high school. He went on to say:

I know I have to get it to get anywhere. I have a ½ credit in State history, that’s it. All I know is I got a long way to go, and I ain’t even worried about it now. Uh, what is there to be worried about. I’m not goin to try to get ahead of myself, if I get too far ahead of myself and not do nothin. Just dream all the time. You can go to vo-tech when you’re in alternative school, Mrs. C. said.

This statement indicated that J.R. had constructed a cause and effect relationship between high school and improving his life by continuing his education. He knew that graduation depended on the accumulation of credits. In regard to attending a vocational school J.R. had acquired knowledge about attending and what he might pursue if he should decide to attend. He said:

I really like construction work. I can work. That’s why I’m wantin to get into vo-tech, so I can take that wood shop, or somethin like that. When I was fifteen I worked for a company tearin down that old building, I didn’t want to

clean no bricks though. I cleaned some because he paid me 5.00 an hour so I wanted some more money so I cleaned some. I cleaned 1025. It took me forever to clean those bricks. You just hit them with a hammer, and just throw them in a pile. My dad wants me to take auto-mechanics.

In this statement J.R. used his personal experience to build a cause and effect relationship between knowledge about himself, what he likes to do, and his ability to work and complete a training program in construction. In his consideration of a vocational type of future occupation he also used information gained from his father. His father and extended family members had also provided knowledge about joining the military after high school graduation. J.R. gave this statement in regard to the possible future goal of military service:

I know one thing I'm goin to do, join the marines. I don't want to go into no army. My dad says he hopes I get into the marines, after high school. That's what I'm goin to try to do. I don't know I might try to get in the marines then go to college. That is if they don't go to war or somethin.

When I inquired as to the knowledge J.R. might have about the marines and his possible plans he told about family members who had provided him with information.

He said:

You have to get through high school first. Three of my uncles have been in the Marines. One was a navy seal. He has some number on his back, my other uncle was in the army, he almost had to go to the gulf war, but he didn't, they didn't you know, what do they call it when they, get you to go, or recruit you or somethin to war, he didn't ever get no letter, so he didn't go. Grandpa was a pilot on a ship, but there was marines with the airforce, but he was on a ship. My grandpa told me what they did in training. I don't know, all kinds of stuff. I don't know exactly what he did, he just talks about the training.

In this statement J.R. once again revealed his knowledge about the necessity of

graduating from high school to pursue additional possible future goals. His knowledge about what he would actually do and whether or not he joined the service seemed to center around the possibility of going to war. Although he had made negative comments about what his uncles had done since their military service his following statement revealed he still viewed the military service as a possible asset to his future. "I just think it might, might help me learn, uh, some responsibility and all this other stuff. I got a lot of responsibility, but I don't know. It depends on how long you stay in there, I'm goin to become a leader or somethin." In this statement he used additional knowledge which he believed would make a difference in what the military service would do for him compared to what he perceived it didn't do for his uncles.

With the present cause and effect relationships about the military, constructed with knowledge from his uncles and grandfather, J.R. seemed to have some doubts about how much the military would ensure becoming a productive adult. He continued his descriptions of possibilities of the future with statements of the possibility of college. He said:

It's just not too long ago, when I started this school, about three weeks after I figured out what I wanted to do. I probably won't ever go, I want to go to the marines but I probably won't ever go. But I know I want to go to college, because I want to do somethin with my life. I don't want to be a burden to my parents.

Once again we see that J.R. had a strong cause and effect relationship between finishing high school and furthering his education to become a self-supporting adult. When I inquired as to the knowledge he might have about college he responded with

more about his hopes for attending college and his sibling's possibility of attending college. He said:

Well, hopefully go to college. That's what I want to do but I think of all these years of high school. I'll probably end-up trying to go to college. My brother and sister are supposed to go to college too. I doubt my brother will though.

He went on to say, 'Yes, I'll probably just want to go to college and major in somethin. I don't know, I don't know what I would do if I don't do that, guess probably try to get me a job somewhere.' J. R. went on to explain in general how he felt about looking toward the future and his possible plans. He said:

I just want to say I get confused. I all the time feel like I must be doin somethin wrong because I don't know. Because why do you say you're goin to do something when you don't even know you're goin to. You don't know that you can do that. I haven't figure any of that out yet. People all the time sayin they're goin to do this and that when they grow up, half of them don't even become what they say they're goin be. That's why I don't even want to know yet.

In another interview he made this statement:

Everybody be askin me what my goals are, and me I live my life from day to day. Cause thats the way I live, I make plans for the next day and what I'm gonna do and if it's a school day, I will be at school. But people askin me about what my goals are, I really don't know, I'm not really into that right now. I'm just tryin to get out of high school right now. That's my first step to get out of high school, get the grade, get done with all this work. But I know I'll get done with it.

J. R. seemed to have established a subgoal for graduation. The importance of this goal was reinforced by his focus on the present rather than on his distant future. To accomplish graduation he expected to attend school every day and get his work completed with the required grades to graduate. In this statement it appeared that he

was confident in his ability to complete this subgoal and finish high school. This was in contrast to his perceived possibility of his family's separation which he believed might end his educational career.

By the third interview J.R. had thought about what he might want to do if he graduates from high school. He appeared to use his knowledge gained from others in his family and culture, considered what others had experienced and formed a cause and effect relationship between his own experiences, others' and what he could do to contribute to others' like himself. He came up with this possible major in college:

Um, like after a couple of years after startin to college, and if I decide not to join the marines I'm gonna or like to go be a teacher, so I can give the kids like me the help I didn't get. Tell them they can do it no matter what anybody says. All they're (teachers) tryin to do is bring down some kids because they don't care if they make it. Be able to tell kids that they can do it because I did it. Shoot, I know its gonna be a struggle but I'm gonna do it anyway. I want to motivate kids, when I get out of school there's goin to be a lot of those kids, like me.

He had sought his mother's opinion of this goal. His conversation with his mother seemed to support what he felt was important and what he perceived himself as able to accomplish:

I know my mom has told me she knows people who went to school four or five years for somethin else and had really good jobs and then became a teacher just because they just wanted to. I would possibly be a coach. I'm good at sports, teach English and science. I don't like math now but I would learn it because I wouldn't want to have to tell the kids "I don't know." Maybe teach high school, middle school, I don't know maybe even grade school.

The identification of what he would teach revealed possible cause and effect relationships between subject domains and what he would have to learn in college. To

once again try to get at what he knew about college he was asked to tell what he thought college would be like, and what he thought he would have to do presently to get ready to go to college. He responded with these statements:

It's just like regular school. You have classes, you gotta live on campus if you can't make a trip every day. I've been at a university, my parents used to take us to the football games. Yes, I've been there a lot. I heard you tellin that girl that it's like a job, you have to work at it every day. I hadn't really thought about that stuff yet. I'm still a long ways from graduating high school. I know you have to have a certain score. You probably need to take algebra, you can take applied math, but I don't even know what else.

Here again, we see that J.R. was very focused on the present task of completing his high school education and had some idea, at least in the area of math, that algebra would be a required course for college. He also had knowledge that an admission exam would be required.

I finally asked J.R. if he had any additional goals such as having a family of his own. He replied very quickly with this statement, "I don't want no kids until I have a good house and a good job. To where I know I can support my kids. I don't want no kids, only if I can support-em. I don't want no kids if I can't." These statements appeared to be represent the knowledge that he had used across experiences to develop the cause and effect relationships between education, getting a job and successfully supporting a family.

To begin the inquiry into his perceptions of past experiences and what he had used to develop his possible plans for the future, he was asked to describe how he made the decision to attend an alternative school setting. The same categories

emerged from his data as in the first case study. These categories will be presented in the same sequence beginning with the decision to go to alternative school, past experiences, present educational setting, followed by the obstacles and strategies he perceives for his future. Then the possible relationships he had constructed between the past, present and future will be discussed, followed by his statements of what he felt as most important to pursuing his future goals and his perceptions of ability to reach his future.

Alternative Decision

J.R.'s primary future goal seemed to be to graduate from high school. In his statements he seemed to realize, as a freshman, he has a "long ways to go." To begin the inquiry as to the knowledge he used to represent this goal and any possible plans to finish high school he was asked why he chose to attend the alternative school. His answer revealed details of the decision and previous school experiences. He said:

I was tired of , I da know, I just decided it would be a different experience. I da know, I didn't like the teachers in middle school, especially the principal. She didn't like me either. It was her idea to make me come to alternative school.

Past Teacher and Student Interaction

The above statement suggested that past teachers and administrators might have played a significant role in J. R.'s past educational experience. To begin to explore how they influenced his beliefs about himself as a student he was asked what kind of student he felt he was in grade school. He replied:

I wasn't no-good student. I got whooped in grade school when I was livin with grandma in another town. The teacher picked me up by the arm and hit me and I just hit her back. I got suspended. That was in the 4th grade, no the third grade, I forgot I failed the third grade. We moved twice. We've moved lots of times.

To take a more detailed look at J. R. as a student his cumulative record was accessed. His formal school record began with report cards at the 4th grade level. In grade school his teachers might have considered him as a low average student. In the fourth grade he made the letter grades of a C and D in math and social studies, C in language, C and B in reading and science, and B and A in spelling. His participation in physical education and music was graded as satisfactory. In the fifth grade year he made letter grades of C in math, C and B in social studies, language, reading, science and an A in spelling. His Iowa Test of Basic Skills in his 5th grade year revealed that his individual skills' tests ranked his performance in the 90th percentile in spelling, capitalization, punctuation, using reference material, equations, decimals and percents, and he had reached the 90th percentile for skills in earth science. He scores fell below the average percentile ranks in everything else, reading skills, usage and expression and using visual materials which were in the 30th percentile. In individual skills in math he was below average in the use of whole numbers and fractions. His language total and work study total scores were at the 50th percentile. His total mathematics score fell at the 25th percentile, social studies and science both almost reached the 75th percentile. These scores indicated that J. R. was by most standards an average student, however, by his previous statement he perceived himself, as he stated, "I

wasn't no good student." This suggested that the interacting factor of his teachers and their approach to him might have shaped his perceptions of himself socially at school, with grades playing a less important role in shaping perceptions of himself as a student.

When he was asked what he remembered most about grade school he said, "I didn't like the fifth grade teacher. I hated her. She tried to put me down. I just put her back down." He went on to discuss how kids get labeled at school, he especially felt this was true in middle school. He described teachers in general by saying:

Teachers don't care they just say it's your problem, it's your life goin away. Well, it's the truth but some of the kids don't have nobody to motivate-em and they need somebody. Teachers just say it's your life, they don't give a ____.

These comments helped support that J.R.'s judgements of himself were shaped by the way the teacher approached him in the classroom. J. R. stated that he felt he did all right as far as grades were concerned until the 6th grade. In the rural community that he lives 6th grade is the first year of middle school. He said, "all my grade school was Okay (grades) until 6th grade." Examining his cumulative records for middle school revealed that indeed his grades did suffer during his 6th and 7th grade years.

He made D's in science, English and social studies, B's in math and a C one semester in reading and an F in the last semester. His seventh grade year he received a half credit for social studies and band, receiving a letter grade of C in both. He failed all other subjects. His Iowa Test of Basic Skills revealed that he had dropped in total scores below the 50th percentile in all areas. In the individual skills subtests he scored

in the high range in spelling, reading amounts, and in determining distance in math. J.R.'s scores and grades changed fairly dramatically between 6th and 7th grade. This indicated that the interacting factors of himself and the context, which included poor perceptions of teachers might have shaped the judgements of himself as a student and influenced a decline in his performance. In other words, his performance level may represent the perceived negative context in which he performed rather than representing his actual abilities. This was supported by his statement of his perception of his academic performance in the 7th grade, "everything was Okay until the 6th grade." He told several stories which occurred in his seventh grade year. These stories seemed to represent how J. R. perceived his middle school experience. He said:

But when I got to 7th. In 7th grade I did (get in trouble). I didn't do nothin in 7th grade. I was gettin into crazy stuff, like gangs and stuff. I didn't do nothin, I went, I didn't do nothin. Just messed around all year. Except for in-school suspension. I broke the record for in-school. I went in there the longest without getting suspended (for getting in trouble while in in-school). I was in there for 13 days. It got me off the failing list. I brought stuff to school I wasn't suppose to bring to school, cigarettes and lighters, stupid stuff like gum and candy and stuff like that.

Here we see that J. R. willingly admitted to his misbehavior at school and made an effort in in-school suspension to make a recovery of his grades and his social behavior. He appeared to be quite proud of successfully making it through the suspension period. The following story revealed how he received so many days of in-school suspension and supported his effort in attempting to recover his grades. He

also mentioned that his misbehavior was contained to the school context. He said:

I've never been in trouble with the cops. Yes, but with the principal. First I did somethin to get 3 days, then I got caught chewin gum in in-school, so I got another day, then she came in there and asked me if I had any more. I told her it was my last piece, then she said she was going to have to search me, so I pulled it out and gave it to her. And then she kept on searching me, so I hit her hand. I told her to get off of me, if you touch me I'll knock you out. Then I had to go to the office and they called the cops. I ended up givin them my cigarettes, then she took me back, first she was going to suspend me, but I asked her not to because I wanted to stay caught up on my work. I didn't want to get zeros. I got caught up while I was in in-school, but after I got out I went back down.

He went on to explain how he hadn't been in trouble with the cops, however, due to his behavior at school he had been recommended to appear before the District Attorney. This recommendation was made by the principal based on the numerous demerits he had received at school. He described his experience before the judge:

Well, I kinda was in trouble with the law in the 7th grade. They sent me to that first offenders thing because I had so many demerits at school. Judge said he didn't want me gettin in no more trouble or he'd be sendin me off. I never done anything against the law anyways, except drink beer and I don't do that any more.

Despite his efforts and attempted recovery of his grades for his 7th grade year, when he returned to the regular classroom, he returned to his previous mischievous behavior. He told this story of the last days of his 7th grade year:

Last three days of school I got in-school. I got caught playin with a lighter when the lights went out. Got in-school for that, last three days of 7th grade. Got straight Fs, every single class I had except atheltics and band. My mom signed me up to 8th grade. They said I could do the work. I was just too lazy. I was just bored. I was bored the whole year.

J. R. seemed to perceive that he had been labeled in middle school as a trouble

maker and as lazy. He had previously used the interacting factors of family and cultural background knowledge, perceptions of himself, teachers and their approach to students to form a cause and effect relationship himself, teachers and his social and academic performance. His experiences at middle school likely began with these factors which produced poor perceptions of himself and him viewing teachers perceptions of him as a “thug” and as lazy. He seemed to perceive this as the cause of his social and academic failure. He said, “they (teachers) thought I was a menace to society, a thug. I don’t know. I would just like to have the feelin that someone at school cares.” This seemed to support the idea that if teachers cared he would have been successful in school.

I asked J.R. if there was anyone in middle school he felt cared about his learning and successful progression in school. He said, “In middle school I just gave up, in band though my teachers were always tryin to get me to keep my grades up.” He had the following comment about two teachers whom he felt cared about him. He said of his English and math teachers:

I My English and math teachers, they was always checkin up on me, makin sure was doin my work and not gettin in trouble. I had two of her (English) classes. She knew what I could do and knows when you’re just not wanting to, and she knew when that was. English and math, they was really the only ones that helped me. She (English) came in everyday in in-school and helped me. She got on to me every day if I didn’t do my work.

His final comment about teachers and what they do explains how J. R. perceived how he felt teachers should approach their students. He said, “students do

better when teachers help them. Yes, teachers who care. It wasn't like that in middle school. It was just a place to hang out." This comment suggested that J. R.'s behavior at school, both academically and socially was a result of the interacting factors of himself and his teachers. The cause and effect relationships between himself and teachers influenced his social and academic behavior and shaped his belief that school was a place to "hang out." This suggested that the cause and effect relationships between himself and teachers shaped J.R.'s perception that his efforts at school to be successful were fruitless because teachers didn't care. Based on the way he perceived that his teachers had labeled him he consequently seemed to give-up on learning and progressing at school and perceived school as merely a place to be with friends.

Past Peer Interactions

J.R. moved frequently throughout his elementary school years between two communities. When he was asked how this might have affected his friendships he quickly responded by saying, "everybody was my friend, everybody in my classes was my friend." When I asked him if he perceived himself as popular he said, "I didn't think about that, being popular, back then. It's easy to make friends. I know a lot of people." When asked about his friendships in middle school he indicated that his friend's behavior was similar to his own misbehavior at school. He said, 'cause when I was in middle school, that's what I did in middle school (go to school to hang out with friends), to go do whatever, whatever we did at school and after, it wasn't

homework.” These statements indicated that along with the factors of his perceptions of himself and his teachers, his peers also were an interacting factor that influenced his social and academic behavior at school. To inquire about how peers might have helped shape his beliefs and behavior in the classroom he was asked about the subjects he liked and disliked in school.

Past Subjects Liked and Disliked

J. R. said he liked math, science and English. This was simply stated by him saying, “just math and science and English. I hated reading class. Didn’t like the teacher, fifth grade.” He went on to say, “math, it was all right until 6th grade, all my classes were all right until 6th grade.” These types of continued comments by J.R. reflected his perceptions of the changes he felt he had made in his academic performance between elementary school and middle school.

Past Obstacles and Strategies for Classroom Work

He went on to say that he couldn’t tell whether or not teachers cared. He stated, “it’s not like I’m their kid, I guess. Just sometimes I worked when I felt like it, nobody cared.” He seemed to respond to his perceptions of his teacher as an obstacle to his social and academic performance at school. He said, “sometimes I just sit there, daydream. Because I didn’t care, no one else did either, no teacher did.” J. R.’s situation in the school context where he felt no one cared may have influenced a lack of motivation toward classroom performance. This appeared to direct his behavior more toward peer interactions. He said, “if I get around my friends, I just be waitin

for that bell to ring.” This statement again supported a direction toward peers and lack of direction toward academic performance. We might conclude that for J. R. the interacting factors of family and cultural educational background, himself, teachers and student interactions, and peers all interacted and influenced perceived obstacles and the direction of J. R.’s behaviors, both socially and academically at school.

In the past, a perceived strategy for school work appeared to be lacking for J.R. He stated that he “just gave up” in middle school. His perceptions of what his teacher thought him, and his perception of the general approach of teachers to students seemed to undermine his motivation toward school. His sociocultural knowledge and the cause and effect relationships between the lack of education among cultural group members and being successful as an adult seemed to be an additional factor that shaped his beliefs about the possibility of successfully finishing school. Because so few had finished school and been successful J. R. may have lacked knowledge about how to go to school and how education was related to future goals. Without clear knowledge about how subgoals are related to future goals he seemed to lack adequate perceptions to develop strategies for daily classroom work. To inquire as to his plans for continuing his education, he was asked why he chose to return to the alternative setting.

Present Teachers and Student Interactions

When J. R. was asked why he returned again this year he replied, “I don’t know, it just seems Mr. Jones and Mrs. C, and everyone here seems like they care. I

work through most stuff myself, when it's easy, but when I ask, I get help. I like this school." When I asked specifically what it was about this school that he liked he said:

Kinda, getting lessons done faster. All I'm doin right now is waitin to go to computers. That's why I hope to go to computers tonight. Yes, I know how to work computers. I don't know that might be what my mom is doin because I was tellin my mom, she said maybe she should go show them what to do. I've been off books ever since 7th grade. I want to go back to regular school to go back to sports. Mrs. C said I'm doin better sometimes. Daydreaming. It's not happenin that much now. I can do a lot of work, a lot of work if I want to.

These statements indicated that J.R. was using past knowledge of himself and teachers and comparing them to his perceptions of his present teachers. He seems to have found that these teachers meet his perceptions of caring teachers. Thus, possibly he can now perceive himself accomplishing classroom tasks and finishing school. This perception was enhanced because he perceived that his knowledge of computers will help him get through lessons faster. This seemed to be related to his perception that he had a lot of years of work to do to graduate from high school.

Present Peer Interactions

J. R. began his story of his present peer groups who attend regular school. He said that he really didn't see many kids his age because he was going to alternative school. He said he saw his brother and sister's friends frequently, and then stated, "everyone knows me." As J. R. told the following stories, he said that part of the reason he came to the alternative setting was to get focused on school. This seemed to indicate that his strategy for school might be avoiding the temptation to be involved

directly with his peers at school. The stories that followed were a clear indication of the benefit that J. R. perceived by attending the alternative setting where interaction with his peer group was limited. He said that a present obstacle to not doing his work at alternative school was “not comin back after break, just messin, talkin, just waitin.” He went on to describe his peer interactions outside of the school context, these interactions were reported as usually occurring during the dinner break at alternative school. He said:

Most of my friends don't even come to school. I had a lot of chances to drink lately, even get high this week. If he would have given me any trouble I would have knocked him out. I don't know what has come over me. I've been gettin in a lot of fights, the last week.

When I asked him about why adolescents in town fight with each other he gave this explanation:

Fightin, it's the only way you can protect yourself in this town. It's the only way you can protect yourself in this town. I can't avoid it, if I can't work it out with someone, walk off, I try to walk off but sometimes you can't, I mean, if they want to fight, um, can't walk away from a fight. It's the only way you can protect yourself, even if you don't want to fight, they'll fight you anyways. Ain't no way to get out of it. I've tried to walk away from at least 15 fights, and end up gettin hit from behind, try to talk it out and then walk away and they rush you from behind. I mean you try to walk off they'll fight you anyway. I mean if they, they want to get on to fightin.

J. R. seemed to indicate that this was an environmental factor that cannot be avoided. It appeared that he would face this factor on a daily basis if he were to return to regular school. I then asked him if there was anything specific that he felt he had to fight over? He said:

Fight over? Me? Messin with my family. Anyone that messes with my family is goin to get it. Sayin somethin bad. That doesn't make me mad cause how do they know. If they just get up in your face and start talkin bad about them, I'll fight-em, but I don't care if its gang or not, if someone messes with my family.

This indicated and supported his actions during the incident with his father in his interview. From my own experience in working with gang members not fighting for your family despite the lack of parenting or sibling relationships, it is considered a sign of weakness and gang abandonment not to fight.

The following story indicated that his compliance to peers' beliefs would be expected if he returned to regular school, and possibly include membership in a gang.

He said:

There's just one gang in this town. Some of my friends are. Yes, my uncle is an OG. Yes, they're scared of him. I don't care for gangs. I don't have to be a part of that. I have blue clothes and a red jacket. They don't mess with me. Yes, you wear the red jacket on the east side, you be down. I don't like violence, I almost got in a fight this week-end, Saturday night. I almost hit him. My friend did, in the back of the head with a stick, almost knocked him out, then we started talkin it out because the guy almost passed out, so we took him to the hospital.

This indicated that J. R. did not wish to take part in gang activity. He senses a degree of security with his uncle being an original gangster and he takes certain actions, such as the color of clothes he wears in specific parts of town, to appear to meet peer beliefs. However, his true beliefs seemed to be that this behavior would interfere with reaching his future goal of graduating from high school. When I asked J.R. how he felt his friends influenced his school work he referred not only to their

behavior but also to his culture member's approach to education.

Most of my friends don't even want to finish school, half of them don't even come to school. No, that I hang around with, they don't expect to finish school. They just go, it's just somethin to do during the day. I used to be like that, go just to have fun.

He gave this explanation as to why his friends don't expect to finish school.

He explained:

Because most of them really don't have parents to look up to. Parents are winos, parents never went to school, graduated school, did anything in school. It makes a difference if parents go to school, most parents don't, maybe more people like me, in my culture, I don't know, possibly.

In J. R.'s interview he implied the difference between his family and other members of his culture's belief concerning school. The Cheyenne-Arapaho have an extended history of beliefs about their education in public schools. This was the focus of Heneritta Mann's book, *In the White Man's Image*. The belief that public schools do not meet the needs of the Cheyenne-Arapaho student has been passed down for more than a hundred years. J. R.'s perception of the devaluing of the public school by his culture was justified by the historical account by Heneritta Mann (1994). His family, however, has made an adaptation to public schools, stressed it's importance, and seemed to expect J.R. to receive an education. Based on his knowledge that his peers interfere with his school performance, sometimes even in the alternative setting I asked J.R. how he would overcome the obstacle of peer group influence and maintain his performance, gain his credits and graduate. He responded with a strategy that he

felt would help him, he said:

Try to talk it out. If you try to walk off, you get jumped from behind. If you fight and loose, you loose. That's the way I feel. But most of these guys, if you were to beat them up they go get other people to jump you, if they didn't win. But if I loose, it don't matter if I loose or win.

This appeared to be an attitude toward fighting that J. R. felt that if he maintained he could avoid continued fighting and becoming involved with gang activity. It appeared that J.R. had developed a cause and effect relationship between himself, peers and finishing school. If he takes part in gang activities he perceived that he would not be focused in school due to the fighting, which usually occurred late at night, drinking and getting high, which was commonly expected behavior within gangs. In the above statement J. R. realized in his present situation among his peers that he might not be able to avoid fighting, but he had developed a strategy that suggested that he approached these situations in a way that the consequences of fighting have no impact on his behavior at school. His statement in the interview concerning how he perceived his aunt's successfully completing high school seemed related to his strategies of avoiding his peers. If he could accomplish only appearing to relate to gang membership, avoid drinking and getting high he felt he could, "get focused, keep from messin up, not drinkin and stuff , and take one subject at a time on the computer" to stay in school and graduate.

Present Subjects Liked and Disliked

J. R.'s statements about his classes were related to his anticipated work on

computers and the subjects he liked and disliked in the past. He began to describe each subject by saying:

Well geography, It's boring, geography is boring, well, not so much now since we're on computers. Math? I don't like math now. I just don't like doin it. Health is boring though. It's hard studying for those tests, especially that heart test, It's hard figuring that out, too many things goin on with it.

Geography was the first subject set up for students to use computers in the alternative setting. Math would be implemented soon after, but was presently taught by traditional whole class instruction. A section of health was also being taught by traditional classroom instruction in the Life Skills class at the time of the interview. Geography seemed to be related to his idea that he was going to be able to complete geography in a shorter amount of time than traditional classroom instruction could allow. Thus, his progress for this class was possibly being judged as quicker toward the subgoal of gaining credits and his future goal of finishing high school. He said in his interview that he had "all this work to do," indicating an anticipation of a lengthy period of time until he gained all of his credits. The completion of Math and health, on the other hand, was possibly perceived as accomplished at a slower pace, as would be similar to his past school experience where course work extends over an entire semester. His perception that geography would be completed quickly seemed to influence his perception of math and health as possibly more difficult and boring because they would be accomplished at a slower pace.

In regard to science and English which had been reported as liked in the past

he stated that presently he felt, "I'm better at science and English." This perception was related to his elementary grades where he had evaluated his performance as "Okay." His middle school years had resulted in failure of these classes. Within his new setting he now appeared to be making judgements of his ability based on elementary grades and present performance rather than his failure in the 6th and 7th grade.

With these new perceptions of himself he began to talk about a possible return to the regular public school setting. He said he liked band and felt sure he would take part in the band program when he returned to school. This was related to his past band teachers, they encouraged him to keep his grades up in middle school so he could continue to participate. J. R. had said in a previous interview, "I was good in band, I played the trombone, they said they needed me because I was good." He said that he felt like he was good in sports, especially track, he said, "I feel like I'm good at track." J. R.'s obvious mention of what he would take if he were to return to regular school was consistent with his elementary performance and his present performance in alternative school.

Present Obstacles and Strategies for Classroom Work

I then asked him what would be a present obstacle to returning to regular school. He immediately said, "teachers in regular school. I don't care what they think, I'll do it anyway." This statement was obviously related to his perceptions of his teachers and their approach to students that he perceived in the past. When I asked

him what he would do to overcome the obstacle of teachers if he should return to regular school he said:

I know I gotta learn better study habits. Learn to stay more focused in class and stuff, I used to just sit there and stare at the teacher, she thinkin I was listin, and I wouldn't even know what she was sayin. Havin someone who cares, checkin on me, like you, especially if I go back to regular school.

These statements were consistent with the difference he perceived between the teachers in regular school and the alternative setting, "seems like everyone here cares." His experiences and perceptions were that caring teachers help students stay focused on their daily work. J.R. continued to tell me how he was planning on progressing in the alternative setting so he could be ready to return to the public school system. He said:

I gotta do some work. Get my act together. Stay in school and keep from messin up. One subject at a time. When I get on the computers, I told my mom, when I get on those computers I'll go fast. When I get on the computers I'm goin to get done with world geography as fast as I can. I can get that out of the way.

I asked him if there were any additional obstacles should he return to regular school. His statements then turned and focused on the peer pressure to conform to peer group, he said, "not drinkin and stuff." This seemed to represent what he felt might be necessary to do to meet peer group expectations should he return to regular school. His statements also revealed his perception of his cultural group member's not valuing and graduating from high school. J.R. seemed to be beginning the defining of a subgoal to complete school and pursue his additional possible future goals. To

investigate how his present school work might be related to his future goals and plans he was administered the future goal survey which asked him to rate the importance of various future goals and the importance doing well during his present performance for reaching each the future goals.

Knowledge and Relationships of High School to Future Goals

J.R. perceived that graduating from high school was a necessary subgoal for furthering his education at a vocational school or college and for joining the military, getting a job and successfully supporting a family. To investigate how he might perceive the importance of his present school work to his future goals and plans he was administered a future goal survey which asked him to rate the importance of various future goals and the importance doing well during his present performance for reaching each the future goals. The results of his survey are shown in Appendix C, Table 1 and 2. He was also asked during interviews what obstacles he might have to overcome and the strategies he felt he would use to reach his future goals.

J. R. rated the future goal of graduating from high school as very important and doing well on his class performance in all of his core subjects as important. He reported in his interviews that returning to regular school, having teachers whom he perceived did not care, and not being able to avoid peer gang group behaviors as his two primary obstacles to finishing high school. He appeared to use knowledge gained from his parents and his cultural group members' situations to form his beliefs about the importance of education. His mother graduated from high school and continues to

further her education, however, his father did not graduate, has maintained a job, but wishes he could make more money. J.R.'s knowledge about the importance of high school was also based on the observations of others' from his culture. He seemed to conclude that without a high school education he may very well, in the future, have to depend on his parents' financial support, because without a high school education he may not be able to get a job. If this were the case, believed that others would not look upon him favorably because he would not be able to support his own family.

The rating of importance of present performance, rather than very important, to reaching his future goal of graduation may have been due to few of his cultural group members graduating and low occupational advancement. In other words, knowledge about how present performance is related to future goals might have limited the knowledge J. R. from his sociocultural context to form relationships between the present and future. The consistent rating of all of his core subjects as important may also be due to the doubt he had of his own ability to graduate.

Although he believed that education was important he stated that "no one graduates." It seemed he had observed that everyone from his culture attended school but had experienced failure. His knowledge about why this occurs was represented in this statement, "their (his peers) parent's are winos." He believed that because his peer's parents hadn't graduated was why so many like himself did not value education.

Another possible reason why his class performance was not rated as very important may be due to the limited opportunities for successful academic accomplishment due

to the barriers he perceived in the regular school setting. If this were the case, his lack of successful accomplishment may have produced beliefs that he could not be an A student. This also may have contributed to the belief that he would be able to at least gain the credits to graduate.

J.R. rated the future goal of vocational or community college as somewhat important, and his performance in all of his core classes as somewhat important. He had the opportunity to construct knowledge through his mother's experience at a vocational school, however, he had not sought information about her training or any specific information about the construction training conducted at the same school. Also, he had gained knowledge through direct experience with construction, had asked questions of Mrs. C, and had his father's advise. Although he had substantial opportunity to gain knowledge this goal seemed to lack importance for pursuit. He in turn rated furthering his education at a four year college as important, and his performance in all of his core classes as very important to this goal.

His knowledge about going to college seemed more elaborate and he continued to seek more information. He had gained knowledge about college by his parents taking him to football games and by earning a trip to a state supported four year college with me through successful class performance at alternative school. When J. R. was asked what might be an obstacle to vocational school or college he said that money would be a problem. He said that he could go to his grandmother for financial help, or get a job, and that maybe his parents could help him. He revealed

more knowledge about what might have to be done to be admitted to college. He said, "keep my grades up, I know you have to have some kind of grade point to get in. I know it will be a struggle at first." Then he said, "pick out a college, I don't know about grades for a state college, I don't know what I need to get in." His strategy to overcome his perceived lack of knowledge about going to college was resolved with the statement of this strategy, "I'll just ask you." These obstacles and strategies are related to his past knowledge and stated future goals. His trips to the college with his parents and me provided knowledge about what needed to be done in the present, such as making good grades and finishing high school to reach the future goal of going to college.

He also said that peers might be an obstacle to going to college. He referred to his present situation and stated an anticipation that a similar situation may evolve at college. He said:

Well, it used to be drugs and alcohol. They (peers) don't bother me no more about that. Used to if they said you wanta get drunk or high I'd say, yes. I don't cause I used to and I don't like it. I did it because everyone else was doin it. I just don't like the feelin after you drink a whole bunch. You start feelin all weird and stuff. No, they don't give me no trouble because they know I don't do it. They give me problems, I knock-em out. My friends know I don't drink, those that aren't my firends and try to say somethin that don't know give me a problem they get beat up.

This story seemed to indicate that J.R. has made a definite choice not to drink alcohol or use drugs, even if pressured to do so. This may be related to his sociocultural knowledge of adult and peer's tendency to do these things and not finish

school. However, his experience is that he sometimes he is forced to fight. If this happened in college he made this statement of what might happen:

Yes, but if somethin gets on my mind I keep on thinkin about it. If I have somethin on my mind that's about another person then I have to take care of it, tell them. I don't care for gangs, but I don't care if its gang or not, if someone messess with my family. If someone gets me mad at college I think I can blow it off, not fight.

This statement was related to his past experiences that once friendships are established people understand his desire not to drink and do drugs, and how he felt about his family. He would fight if forced, but he stated that he didn't care if he wins or loses, it was simply over. He seemed to believe that in college he will be able to maintain this attitude and stay focused to do his course work.

J. R. rated the future goal of getting a job as very important, and his class performance as important to this future goal. J.R.'s possible occupational goal to become a teacher was related to his own past experiences within his culture and the school context. He believed that there are many others like him and that this population is growing. He stated he had a desire to motivate students who live in similar environments to his. What he believed he would like to teach was related to what he perceived himself to be good at, and the subjects he liked in the past. He said he wanted to be a coach, teach science and English, and would want to learn math because otherwise he would not be able to answer the student's math questions. His obstacle to becoming a teacher was grounded in his doubts about his ability to finish high school and to overcome the barriers he perceived to go to college.

J. R. rated the future goal of joining the military as important and rated his present performance in school as somewhat important to reaching that goal. J.R.'s interview revealed that he had gained knowledge from his uncles and grandfather. His father had also suggested the army as a possibility after graduation. J.R. possibly believed that the military could enhance his ability to be more responsible as an adult, however, he seemed to have doubts based on his knowledge of his uncles responsibilities toward their families. The level of importance of this future goal and his present performance indicated that this goal still is a possibility, however, he didn't feel that his class performance was vitally important to this goal. He did not report whether his uncles had graduated from high school, however, J.R. knew that graduating was necessary to join.

When I asked J.R. what might be an obstacle to joining the Marines he said, "I'll probably look into it before I go. If I do go it might probably be after college, or before, I don't know. I kinda do want to go to college." This statement indicated that he would have to seek more knowledge before he would make the decision to join. Over the course of all of the interviews this goal seemed to become less important and the goal of going to college to become a teacher much stronger.

J. R. rated the goal of making money in the future as very important, and his present performance in all of his core subjects as very important to this future goal. In his interviews J.R. emphasized how he and others' viewed his uncles, "don't no body look up to them, they can't even take care of their own kids." He also stated several

times that he did not want to be a financial burden to his family. He also had a desire to be looked upon favorably and with an education he felt he could accomplish making money by “getting a good job” and supporting his own family. His obstacle to making money was to accomplish his subgoal of education to get a job and his strategy to do this was to finish high school.

J.R. rated having a family as important and his present performance in all of his core subjects as important to this future goal. His interview statements about how he didn’t want to think about a family until he had “a good job and a good house” certainly emphasized the desire to be sure he could support a family before he pursued this future goal. When I asked J. R. about any obstacles and strategies to having a family, he relayed this statement which supported his previous statements:

That’s why I don’t ever want to quit school. I kinda feel like I’m goin too, sometimes I feel like I’m gonna quit but when I think about it I don’t want to because I want to go to college, try to get a good job so I can live in my own house, I do want to have kids, two kids, a boy and a girl, but I want to be able to take care of them before I have them.

J. R. perceived graduating from high school as a primary future goal. His knowledge of the educational background of his family and other members of his culture seemed to be a center of focus for accomplishing the goal of high school. The primary goal of graduating seemed to be pursued in order to avoid becoming someone who must depend on other family members for financial support. He also emphasized the desire to be looked upon favorably. His ratings of his present performance indicate that he believed graduation was very important to his future goals, however, grades

are important to gaining the required credits. With an education he felt he could accomplish graduating, “getting a good job” and supporting his own family.

The final future goal item on the survey asked: “how important is the future goal of making a contribution to society, and how important is school performance to that goal?” J.R. rated this goal as important and present performance as not at all important. This was somewhat of a surprise due to his report that if he became a teacher he could motivate kids “like him” to finish school. However, because J.R. perceived few that people from his family and culture graduating from high school this did not mean that they could not get a job, his father had successfully maintained a job to support his family, and additionally, in his culture by the time adults reach the status of grandparents, they seem to be able to provide financial support to their children and grandchildren. This rating may be interpreted that whether or not he graduates he might believe that with time he would be able to help support a future family.

All of J.R.’s future goals and subgoals, his perceived obstacles and strategies seemed to be interrelated to his past and present experiences at school. Critical to motivation is the perceived relationships between present classroom tasks, future goals and subgoals.

His final statements concerning the importance of school to future goals dealt with his perceptions of teachers. He said, “I have to get done with all this work. I really don’t care if teachers care if I graduate.” To further investigate what might be important to accomplishing his possible subgoal to the future goal of graduation I

asked him what he felt was important for him to do or learn at school.

Present Perceived Instrumentality of Classroom Work

J. R. began with statements about specific subject content. He said:

I don't know, you gotta have math because about every job requires math. I really don't see what history has to do with a job. I did it so I could get a credit. I liked it, it was fun. It might help, maybe it could.

When I asked him why he did his present work at school he responded with the question, "why do I do my work? To get a credit, so I can graduate." Like I'm not sayin, like history can't help you, I just don't know how." J. R. seemed to believe that gaining credit toward graduation was the most important thing to do at school. These statements were consistent with his primary focus on what makes the difference between being a productive adult and "hanging out on the streets." Based on his knowledge of the possible future goals of joining the military, going to college, or a vocational school he had not constructed instrumental relationships between specific subject domains other than most jobs require some kind of math.

J. R. perceived graduating from high school as a primary future goal. His knowledge of the educational background of his family and other members of his culture seemed to be a center of focus for accomplishing the goal of high school. The primary goal of graduating seemed to be pursued to avoid becoming someone who must depend on other family members for financial support. He also emphasized the desire to be looked upon favorably. With an education he can accomplish this by "getting a good job" and supporting his own family. This perception seemed to be

related to how he perceived others to view his uncles, “don’t no body look up to them, they can’t even take care of their own kids.” His final statements concerning school dealt with his perceptions of teachers. He said, “I have to get done with all this work. I really don’t care if teachers care if I graduate.” To investigate his perceptions of his ability to accomplish school and progress toward the future J.R. was administered survey questions which asked him how confident he was in his school work, and how he felt his ability was compared to others in his classes. The results of this survey are reported in Appendix C, Table 3.

Present Perceptions of Ability for Classroom Tasks

Survey questions which tapped his perceptions of ability of his school work help provide insight into his beliefs about his own abilities to complete his classroom work and progress toward the future. His agreement on these items ranged from agreement to disagreement. He disagreed that compared to other students he thinks his skills in his core classes are weak, and he disagreed that he thinks he is doing better than others in his classes. However, he usually agreed that in his classes he is certain that he can understand the content, and relative to others he usually agreed that he was as good as others. He agreed that he was confident that he could perform as well as others, confident that he had a good understanding of the ideas taught and the material in each of his core classes. These perceptions of ability indicated that he did not necessarily believe that he was better but could do as well as others in his classes. This seemed to be consistent with his remark that he can do the work if he so desires.

His perceptions of ability and his interview statements indicated that he believed that if he stayed in alternative school he would be able to accomplish his subgoal of gaining credits and finishing high school. He said, "I want to, I want to graduate by '99. Just take one subject at a time and get out of here. I think if I stay in alternative, I'll graduate. If I go back to high school I know I won't graduate." His statements about alternative school seemed to indicate that he believed he could get the help from his teachers to "keep from messin up," avoid peers and follow his plan to reach the future.

Summary

Based on the interview data J.R.'s past, present and future goals were interrelated. The knowledge he constructed involved perceptions of himself, others and events. The content of future goals, subgoals, experiences and obstacles were consistent across subject domains, subjects liked and disliked, and with his teacher and peer interactions. The relationships that he developed across time were revealed his statements of future goals, subgoals, past and present experiences, and obstacles. The strategies that he developed to overcome obstacles and accomplish subgoals were consistent with what he reported as instrumental to pursue to accomplish his future goals. Graduating from high school was perceived as instrumental to his additional future goals of furthering his education, getting a job, making money and having a family.

We might conclude that J.R. used his knowledge of the past and present to

make the decision to return to the alternative setting. He believed his friends, who did not value school, and teachers who would not help him stay focused might prevent him from using his strategy of not “messin up” and making the grades required to accomplish his subgoal to gain credits. It appeared that he believed the avoidance of peers and teachers who did not care would be necessary to finish high school. J. R. believed that if he did not graduate from high school he would not be able to avoid being like others’ in his extended family and members of his cultural group who did not graduate and could not get a job to support their families. Not graduating from high school would prevent him from pursuing the future goals of possibly furthering his education, getting a job and successfully supporting a family. J. R.’s perceptions of his ability to accomplish high school graduation and reach his future goals seemed to be grounded in his ability to avoid of his present peer group and by having teachers who cared at the alternative school. It appeared that J.R. believed that staying in alternative school would be necessary to accomplish his future goals. His present perceptions of ability and his future goals should help regulate his present academic behaviors through the tasks he perceives as instrumental to pursue in the classroom.

Motivational Profile: Case Study 2

The level of importance of future goals is predicted by the model to influence the types of goals for present tasks through the perceived instrumental relationship of present classroom work to future goals. Present tasks in turn are predicted by the model to influence the level of cognitive engagement and academic achievement. J.R. stated that he was undecided about what he wants to do in the future. His family and cultural group member's beliefs about education were in conflict. He had seen few people graduate and benefit from their educations. Therefore, J.R. didn't know exactly what to expect in his future. Although he knew education was very important to his future his perceptions of the instrumental relationships between the present and future were somewhat lacking. His subgoal for education was "not messin up" and "gaining the required credits." J.R.'s interview data did not reveal any specific strategies to reach his educational and more distant goals. This seemed to leave J.R. unsure about his perceptions of his ability to finish high school, especially if he returned to a regular school setting. Exploring J.R.'s intrinsic, extrinsic and future valuing of subjects should provide insight into what he did perceive as instrumentally related to his future goals. The results of this survey are listed in Appendix C, Table 4.

Intrinsic and Extrinsic, and Future Valuing

J.R. reported on the survey that he agreed that he plans on taking more classes in English, math, science and history. He reported that he usually agreed with the statement that he was interested in learning more about English. He strongly agreed

that he wanted to learn more about math and science, and he strongly disagreed that he wanted to learn more about history. However, J. R. disagreed that he would take more classes than required in any of his core subjects. This self-report was consistent with his desire to “get my work done, and get out of here.” His survey results indicated that taking more classes in each one of his core subjects may represent his perception reflected in the statement, “I got a long ways to go.” He knew he had to take more classes in each subject area to graduate.

The results of items concerning future interest in taking more classes were, however, consistent with his interview data. English and science were subjects that he reported in his interview that he perceived himself good at and that he liked in the past. Wanting to know more about math was consistent with belief that math is important to any job, and his desire, if he became a teacher, to be able to answer student’s math questions. He strongly disagreed that he wanted to know more about history. This was consistent with his report that he thought geography, a social studies class, was boring and that he didn’t know exactly how history would be important to his future.

J.R.’s ratings of items dealing with intrinsic motivation ranged from disagreement to strong agreement. He disagreed that he enjoyed the challenge of English and math. He usually agreed that he enjoyed the challenge of history and strongly agreed he enjoyed the challenge of science. He strongly disagreed that he found working with the material enjoyable in English, math and history, however he strongly agreed he found working with material in science as enjoyable. As far as

subjects being considered interesting, he found English as usually interesting. He disagreed that math was interesting, and strongly disagreed that history was interesting to him. He strongly agreed that he found science interesting. He also reported his work in English, math, and history as unsatisfying, and usually found his work in science satisfying.

Extrinsic value survey items asked J. R. how valuable each of his core subjects were to his future. He strongly felt that being more knowledgeable in all of his core subjects would be of value in the future. He strongly agreed that history would be of little value in the future. This appeared to be related to his perception the described in his interview that he didn't know how history would be valuable to him in the future. He strongly agreed that English and math would help him in the future. He agreed that science would be of help, however, once again he strongly disagreed that history would be of help to him in the future. His self-report indicated that he felt English was a core subject that would help him in his future work and that he needed to know more about English. He strongly agreed that math had a lot to do with his future and that he would definitely need to know more. He reported that he agreed that science would have something to do with his future work and he also agreed he needed to know more about it. He once again strongly disagreed that history would have something to do with his future work and he definitely felt he did not need to know any more. There was a discrepancy in his ratings for his history class in his self-report. At the time he finished his credit in history he no doubt had experienced

satisfaction in it's completion, he had completed a challenging task and maybe had developed some interest. However, the overall ratings that J. R. indicated that he valued his classes more for their importance to graduate rather than for the importance of subject matter to his future.

Repeated observations of the order by which he did his daily work were consistent with his reports of valuing and suggest a strategy for the gaining of credits. Seven out of the nine observations noted that he began with history, then world geography, then health and finally science and math. One day he began with health, followed by geography and history, science and math. Only on one day he began with science, then history, geography, math and a health test. This order suggested that his management strategy for getting done with his work and gaining credits started with the classes he dislikes the most, followed by science which he reported he enjoyed and finished the day with math that he reported he didn't like but he reported in his interview and on the survey as important to getting a job. He was not observed doing English on any of the observations days. J.R.'s interests in his subjects were consistent with his strategy to gain credit rather than his interest in subjects because they had specific relationships to future goals. This would be consistent with his interview, he reported that he felt math was important to almost any job, but didn't know how history was important. Science was the most interesting and satisfying, and he found English as just usually interesting. He reported that he would probably not take additional courses past those required for graduation in any of his core subjects.

The types of valuing and the order at which he completed his daily work were consistent with his interview data. The goals he would choose for present work should reflect what J.R. believed important to reaching his future goals. As predicted by the model J.R.'s valuing of subject content was consistent with what he perceived as instrumentally related to his future. Gaining credits rather than knowing specifically how learning subject content was related to future goals shaped his valuing and would be predicted to influence the types and levels of goals chosen for present classroom tasks.

Immediate Classroom Goals

As an indication of the types of immediate classroom goals that J.R. may be pursuing he was administered the *Introductory Survey on Learning*, which asked him to rate his level of agreement with reasons why he does his present classroom work. The results of this survey may be reviewed in Appendix C, Table 5.

Learning and Performance Goals. J.R.' self-report for the adoption of learning goals for his present classroom work ranged from the mid-range to the highest point on the scale. He strongly agreed that he approached his classroom work because he wanted to understand the subject content. He usually agreed that he did his work to understand complicated ideas and usually agreed that he enjoyed the challenge of all of his core subjects. He agreed that he liked to understand interesting things and liked to understand what he is studying in all of his core classes. These ratings indicated that J.R. might really desire to understand subject content, however, maybe not when tasks

get too difficult and challenging. His survey results were consistent with his valuing of education he reported in his interview. He knew that education was important to his additional future goals, however, his valuing of subjects during classroom work reflected his more immediate perceptions of the need to gain credits to accomplish graduation. In addition to these levels of learning goals he also had additional goals for doing his present classroom work which involved comparison to his peers.

J.R.'s ratings for doing his work for comparison to his peers ranged from strong agreement, which was the highest level of agreement, to the mid-range of usual agreement. He usually agreed that he did his classroom work to look smart to his friends, and to score higher than others in his class. He agreed that he did his work because he liked to look better than other students. He strongly agreed that he did not like to be the only who couldn't do the work and he strongly agreed that he did his work so he would not get embarrassed. These goals seemed to correspond to his future desire to be looked upon favorably by others. Although J.R. adopted learning goals for classroom work, he had a much stronger agreement that he did his work to outperform other students and to look good. The performance goals that J.R. adopted reflect a relationship to his future goal of avoiding looking bad. Again, we see that J.R.'s perception of instrumentality is based on a relationship with future goals, however, his strategy of "not messin up" and "gaining credits" reflects a lack of knowledge about how learning subject content might be related to specific future goals.

Repeated observations were consistent with the extrinsic valuing J.R. had for his classes. He was observed in all nine observations as doing his present work for extrinsic incentives such as time to play computer games, and extra time to play basketball. He was also observed five out of the nine observations encouraging others to do their work when the incentive was offered as a group reward.

Goals for College. J. R. reported that he strongly agreed that he did his daily work in all of his core subjects to gain admission and scholarships for college. He agreed that he did his classroom work because it was necessary for admission, and that performing well was important to being admitted to college. J. R.'s report that he did his daily work in all of his core subjects for college admission and scholarships were consistent with the subjects he felt he needed to master to become a teacher. He had also visited a college campus frequently and his parents have encouraged furthering his education to get a job to support himself and a future family. The knowledge that J.R. held about college and his seeking of more information helped guide his decision that if he wanted to attend college in the future it was important to make good grades. His results were also consistent with his future goal survey results that college was important and grades were very important. Scholarships were related to his obstacle of money to attend, and college itself was instrumentally related to his other future goals. Going to college was believed to lead to a better paying job which would enable him to support a future family and be looked upon favorably.

Social Responsibility Goals. J.R. also reported that he usually agreed that he

did his present classroom work in all of his core classes because that was what school was all about. He strongly agreed that he did his present classroom work because that was what he was suppose to do at school. He reported that he disagreed that he did the work because that's what the teacher asked him to do, but he strongly agreed that he did his work because he wanted his teachers to think that he was smart. He also strongly agreed that he didn't want to look foolish to his teachers, family and peers. He agreed that he did his work because he didn't want to make the teacher unhappy. These responses were consistent with his interview. In the interview he said he wanted to do something with his life, he said, "I don't want my life wastin away." He knew that to succeed in school you couldn't be "messin up." The survey responses supported the interview data concerning what was important to accomplish in the future; to get a job and support one's family. J. R.'s orientation toward school appeared to be focused toward impressing others with his ability and for others to look upon him as progressing toward a successful future. The "looking good" orientation was also consistent with the importance to appear to be a gang member rather than actually being a member. He believed that actually being a member would interfere with his school performance.

J. R. indicated that he strongly disagreed that he did his work because he wanted his family to think he was a good student, however, he strongly agreed that he did his school work because that was what his family expected him to do. He agreed he did his work because he didn't want to make his family unhappy and usually agreed

that he did his school work because he gets rewards from his family. These responses to items pertaining to meeting family expectations were consistent with the level of knowledge he had about future goals that would enable him to identify the instrumentality of school work to specific types of future goals.

He disagreed that he did his work because he got things that he liked from his family. These goals were consistent with his perception that his family expected him to get an education. He may not however feel he had to be a good student to make his family happy. It may be just the graduation from high school that he believed would please them. This was supported by his report that he did his work because he would make his family unhappy if he didn't finish school, but he didn't necessarily have to perform well to make them happy. He received rewards from family for his work at school, but he didn't necessarily get things that he liked. He reported that his family goes to the shopping mall and gets new clothes, unlike his cultural peers, however, they are not always the types of clothes he wished to wear. He seemed to indicate that his parents buy him the types of clothes that they think he should wear to school, which may not allow him to appear as a gang member.

J. R. reported that he usually agreed that he did his work in all of his core subjects because good grades in all of his subjects were important to his future career. This was consistent with his future occupational goal of becoming a teacher. He didn't like doing math but was willing to learn so he can answer students' questions. He also completed his history although he didn't know how history was important to

the future. He also usually agreed that he did his school work because it is important to his future career and to getting a job after high school. These statements that were met with usual agreement were consistent with his interview response that he wasn't sure how exactly all subjects were important to the future. This was also consistent with his sociocultural knowledge, or the lack thereof. Many of his cultural members have not finished school and acquired jobs; therefore, his knowledge about specific future goals, subgoals and the relationships between specific domains and occupations was limited. According to the model the perceived instrumental relationship reflected in the levels and types of goals J.R. had would influence the level of cognitive engagement, persistence, effort and performance on his school work.

Cognitive Engagement

J.R.'s ratings on items pertaining to his level of cognitive engagement ranged between usual agreement and strong disagreement for studying (Appendix C, Table 6). He usually agreed that he examined similar problems to help him understand other problems, worked several that were alike and would usually try new ways of working on material. He also reported that he worked practice problems and other questions to check his understanding. He disagreed that he classified similar questions and problems in all of his core subjects and also strongly disagreed that he draws pictures or diagrams to help him understand the material he studies.

The level of ratings on items which tapped shallow processing were similar to those reported for deep processing strategy use. The ratings directed toward the

levels of shallow processing indicated that he agreed he used the strategy of memorizing material in all of his core subjects and usually would review previously studied material before he took a test. He disagreed that he used past completed assignments to review or study for tests.

All of the ratings for deep and shallow processing were consistent across all core subject domains indicating that he approached all of his core subjects with similar levels of cognitive engagement. Observers noted that he was more likely to ask for help with an answer rather than attempt to understand and work through material himself. On the days he was observed he asked the teacher for help in completing assignments seven out of the nine observations, and asked peers three times out of the nine observations. Observers noted his interaction with peers as social rather than asking peers questions to gain understanding of subject material. One observer felt he was sincerely seeking help for understanding, another observer felt he was seeking help to “get the answer.” Asking for help for the answer, rather for understanding, and the levels of cognitive engagement reported indicated that his intrinsic valuing of material in his core subjects was as he reported. Science was the only subject he strongly agreed he found interesting, and he reported he would not take any more classes than required in all of his core subjects. His level of cognitive engagement seemed to be governed by the attempt to get the work done and only possibly sought for the understanding of the material in the class he found most interesting, science. This would be consistent with his statement, “I can get a lot of work done, if I want

to” and his strategy of gaining credits. In other words, if he chooses to, he can complete the work, but he may do so without great understanding. This would support that J.R. did his work to gain credits. Gaining credits was perceived as the instrumental subgoal to reaching his future goal of graduation, which in turn would influence the accomplishment of his more distant future goals.

Persistence and Effort. His persistence on his classroom work supported the goals he chose for classroom work, level of cognitive engagement and valuing of the material in all of his core classes. The ratings for persistence on tasks ranged from usually agreement to strong agreement. He usually agreed that it was like him to try to get the answer from someone else. It also appeared that if this strategy didn’t work he would give up and go on to the next question. He agreed that he would keep working until he thought it was correct, but agreed that he completed his homework without checking for accuracy. He disagreed that he would wait until the teacher explained things he didn’t understand, which is consistent with his strategy to ask for help. The items asking for help from the teacher were used as an indicator of the level of cognitive engagement that he was willing to invest in his assignments. He reported that he did not wait for the teacher to explain things, and his frequent asking the teacher for help may be interpreted as seeking the answer rather than seeking understanding. He agreed that he was more likely to guess at the answer than look for it in the book to figure it out. He strongly agreed that if he had trouble solving homework problems he copied down the answer in the back of the book if it was

available. These answers appeared to be consistent with his level of cognitive engagement and valuing of material. It is more important for J. R. to get it finished than to gain a deep understanding of the subject content.

Repeated observations supported his ratings of persistence. The two observation questions that observers were asked to rate were: does J. R. stay on a task until its completion and does he have to be told to return to tasks? J.R. was observed not staying on tasks until completion seven out of the nine observations. He was told to return to his tasks eight out of nine observations. One observer noted that when he was “on computer-based instruction he was more likely to stay on task.” Another teacher observer noted that they “usually have to help J. R. refocus to get his work completed.” All of the observers rated this type of behavior as typically occurring on a daily basis.

J.R. rated his level of effort in English and history as average. He rated his level of effort in math as fairly low and his level in science as extremely high. His rated his own performances in each of his core classes as follows: English, math and history as about average, and his performance in science as fairly high. These ratings of effort and performance when compared with his strategies seemed to indicate that J.R. perceived his effort possibly higher than his self-rated and observed persistence to stay on tasks until he understood the material.

Self-Regulation. Based on the interview data J.R.’s past, present and projected future goals and plans were interrelated. His survey results that he valued subject

material, and his classroom goals suggested that he pursued multiple goals in the classroom, which had relationships with future goals and plans. The perceived instrumentality of gaining credits for high school graduation was the most important relationship between present classroom goals and his future. If he finished high school then he could further his education, get a good job, support a family and avoid being like other members of his culture.

His ratings (Appendix C, Table 6) of self-regulatory behaviors ranged from usual agreement to strong disagreement. This indicated that he did not agree or strongly agree that he used any of the strategies on a regular basis in any of his core subjects. He usually agreed that he plans out how he studies, checks to see if his answers make sense, usually checks for errors, and usually takes note of what he doesn't understand. He strongly disagreed that he makes sure he understands the assignment before he begins his work in any of his core subjects. He disagreed that he organizes his study time or organizes his approach before he starts to work. He disagreed that he had a clear idea what he was trying to accomplish in his core subjects. He also reported that it was not easy to establish goals for his present classroom work. These ratings suggested he engages in relatively little self-regulation of his behavior at school.

J.R.'s interview data did not reveal any evidence of strategies directed toward an understanding of learning subject content. His primary focus was to avoid his peers and keep from "messin up", an idea he may have developed based on his two aunts

successful completion of school. He said, “they graduated because, they didn’t mess around, did their work and kept their grades up.” This was consistent with his subgoal to finish high school, “to make the grades to gain the credits.” This was consistent with the types of goals he chose for present work. Although he strongly agreed that he wished to understand the material he studied, his classroom work seemed to be more guided by his desire to look good to others, please his teacher and meet his family’s expectations, without necessary regard to learning subject content. These goals are consistent with lower levels of self-regulatory behaviors he exhibited. In J. R.’s case it seems his work is done primarily for the sake of just getting the work done to gain the credit.

To better understand how J.R. might regulate his behavior in alternative school to meet his present goals at school, he was asked what he does on a daily basis to help reach his future goal of graduating from high school. He said, “I gotta do some work. Get my act together and keep from messin up.” J. R.’s perceptions of his ability to graduate from high school seemed to be grounded in the avoidance of his present peer group. If he could avoid his peer group and had caring teachers he felt he could accomplish his educational goal of graduation. In alternative school he had teachers who he felt cared, however, his peer group was still an obstacle. One observer noted that a cousin’s arrival to attend the alternative school had lead to a change in J.R.’s behavior. This indicated that the peer influence that J.R. reported in his interview was accurate. His peer group seemed very important to him, he reported in his interview

that “everyone was his friend and everyone knew him.” We might conclude that J.R.’s choice to return to the alternative setting this year was a type of volition strategy to manage conflicting goals. He believed his need for peer and cultural affiliation would interfere with accomplishing his daily work because they did not value education. If he failed to do his work he would not be gaining credits to meet his parent’s and his own expectations to graduate. This situation put J.R. in a position of needing to delay gratification of his peer affiliation needs to manage his behavior to meet his educational goal and his more distant future goals. Repeated observations provided insight into how he coordinated his conflicting goals. Observations indicated that he arrived on time five out of the nine days he was observed. All of the observers indicated that this was fairly typical behavior for J. R. One of the teacher observers noted that J. R. was more likely to arrive on time before his cousin started attending the alternative school. He only promptly began his work upon arrival two out of the nine days he was observed. However, he had all the supplies he needed to do his work eight out of the nine days observed. One observer noted that he “will get his books and supplies as soon as he arrives, but he doesn’t go to right to work.” Another observer said that he “always has plenty of pencils and paper and always willing to loan extra supplies to other students, and visits while he loans.” He was observed returning promptly back to work after teacher and self-administered breaks four out of the nine observations. This behavior was rated as fairly typical of J. R.. One observer noted, “when class moves to the computer lab J. R. disappears for a few minutes.”

Another teacher observed, "he played solitaire on the computer before he began his work, and he has a tendency to roam around and visit before he begins his work." Repeated observations supported his present perception that doing work at school is what you're suppose to do. During all the observations he was reported as following general classroom rules and all observers rated this as very typical for J. R. However, one observer's general comment about J.R.'s motivation was, "This particular student has leadership quality. Peer pressure is sometimes overshadowing. This person's achievement in class has shown very favorably toward an education to a productive life style." This observer believed that J.R., when focused, exhibits behavior toward becoming a productive adult. However, the observer had noticed that when friends, or cousins, are in attendance this behavior changes. This supported the importance of J.R.'s peer affiliation and was related to his interview statements that indicated that he is proud that everyone was his friend. This observation also supported J.R.'s perception of the influence that peers can have on his classroom performance. Peers' had influenced J. R.'s low achievement performance in the past for J.R., and influenced his perceptions of teachers' treatment of individuals within his culture. Not completing his work impacted his perceptions of ability. In his present setting he perceived the teachers at alternative school as caring and helping him refocus on tasks. His cousin's arrival may have less influence on his behavior with the help of his teachers and which may enhance his belief that if he stays in the alternative setting he will get his work done.

The self-regulatory ratings that J. R. reported and the observations of his teachers indicated that J. R. may not be likely to delay the gratification he gains from social interaction. The frequent observations of his late arrival to school and lack of promptness in beginning work are an indication that he may not use volition strategies to manage his conflicting goals. According to the model, J. R.'s goals, values, cognitive strategies and level of self-report of his self-regulatory behaviors should influence his academic achievement.

Present Academic Achievement

J.R. self-reported various classroom goals for doing his academic work. Although he reported a mid-range acceptance of learning goals his performance goals of "looking good to others" were rated with much stronger agreement. J.R. reported that he strongly desired to meet his parents expectations and graduate from high school. He said in his interview that "his dad wants him to graduate and that's why he's doin it." He reported he did his work to gain college admission and knew that grades were important for scholarships. He also wanted to please the teacher and do the work because that is what he is supposed to do at school. These goals, according to theory, were consistent with J.R.'s reported valuing of subject material, cognitive engagement, persistence, effort and self-regulation. The path between the present and the future appeared to include the strategy of "not messin up," which would enable him to accomplish the subgoal of gaining credits to graduate. Based on the knowledge that he reported in his interviews, on surveys and was observed doing J.R. believed

that gaining credits was instrumental to achieving his educational goals. Achieving a high school education was perceived as enabling him to get a job, support a family, be looked upon favorably and avoid being like many members of his cultural group. These future goals influenced his valuing and choice of goals, cognitive engagement, persistence, effort and self-regulation. According to the model, these behaviors should influence his level of academic achievement.

J. R.'s achievements at the conclusion of this study included: the half credit required for State history. He had completed some of his assignments in World Geography in the text and moved to the computer to finish the last 14 lessons. He had yet to finish his final exam for his geography credit. He had completed six of the 52 lessons in English. He completed all 67 lessons in science and received course credit. He was completing his math under whole class instruction at the end of the study.

J.R.'s subgoal to graduating from high school was to gain the credits required. He completed his State history credit first. This might have been because it was perceived that a half credit requirement would take less time. He had almost completed his geography when he moved to the computer. The teacher allowed him to finish his lessons on the computer, however, he had to take the written test constructed from the book. This was an open book test that contained around 200 short essay questions. His records showed that he completed his science credit on the computer before he completed his written geography test. His incompleteness of his English may have been due to the move from whole class instruction of all of the

courses to computer instruction. He finished a short number of lessons for geography, the science, the class he found most interesting. If this were the case, J.R. completed his course work the fastest way he believed he could gain credits.

J.R. 's rating of the level of importance of his future goals and the importance of present school performance suggested that with his present knowledge he used strategies to complete the credits required for high school graduation. His valuing of subjects, cognitive strategies, his rated persistence and effort in his classes and self-regulation were consistent with the types of goals he pursued during classroom work. These behaviors were also consistent with his subgoal of gaining credits to graduate. He believed that accomplishing graduating from high school would enable him to possibly further his education, get a job and successfully support a family.

Case Study 3

Case Study 3: Goals and Plans for the Future

Brooke is a 15-year-old Caucasian female. She lives with both biological parents and is the youngest of seven children. She has five brothers and one sister. All five of her brothers are now married. Her sister lives in her own home. Brooke and her family have resided in this community all their lives. All of her brothers and sister live within ten miles of their parent's home. Her parents own a salvage and wrecker service. They started this business with the intent to provide their children with jobs so they could remain in the rural community and support their own families. This was revealed when Brooke told me that "because there aren't any jobs in this small town my parents started their own business." Brooke's interview seemed to reveal that all her family members have very close and supportive relationships.

Brooke, two brothers and her parents work full time in the business. Brooke answers the phone, and she and her mother do the clerical work. Brooke has two brothers, and her father who work full time at the actual salvage and wrecker service. Brooke's other brothers and sister work outside of the business but are available when the family business requires their help. Brooke's family members see each other on a weekly if not a daily basis.

Brooke talked proudly of all of her family, however, she seemed especially proud of her mother. It appeared that her mother, along with raising seven children, worked outside of the home since Brooke was very young. Brooke reported that,

“Mom worked at Sonic. She would work until about 6:00. When I was little, I went home and watched cartoons. When I got older, I think I usually went riding around with my friends until about 5:00.” In addition to her job, her mother actively supports young people’s needs in the community.

The pride that Brooke had for her mother was especially evident when she talked about what her mother does at the community service level. Brooke’s mother is actively involved in a youth coalition which has as its primary goal to give youth a voice in what they desire and need in the community. Brooke’s mother has spent many years in time, energy and money in an attempt to get a public swimming pool in the small community. Although her efforts through community counsels and school have been fruitless, her mother remains dedicated in providing activities for young people.

Along with running a business, her mother took it upon herself to make arrangements with the National Guard Unit in the community to open the armory building to the youth in the community. Brooke’s mother volunteers her time on weekends and takes responsibility for any youth who wish to come down and roller skate in the armory. She has arranged for local young people who have started their own bands to play while the youth skate. When I made a statement about her mother’s work with children Brooke replied, “Yes, she’s been with, (pause) had a lot of kids.”

Brooke reported that her mother graduated from high school, but really didn’t

know for sure if her father had. When I asked her if her brothers and sister had graduated from high school she said all but one brother. Brooke described his present situation as:

He's 23. He makes a lot a lot of money, and his boss loves him to death. He'll want to go out to eat. My brother will have on crummy clothes that he went to work in, and his boss will just go buy him some clothes to wear. He just lucked out, not even graduating, he just got lucky.

I asked her about her other brothers and sister's education and if she felt like she was like them. She said, "no, they didn't have any trouble in school, I don't think so, they made good grades and stuff in school." Brooke has one brother who is a senior. She said of him, "he's real smart." I asked her how she felt about her one brother who did not graduate. She made a comparison between herself and her brother and his education, she said, "maybe my brother (called him by name), he was a trouble maker, he did exactly like I did all through school. He didn't even graduate, which was stupid because he had only a ½ credit to graduate, but I think he quit because of absences." I then asked her if she would take the chance of not graduating and getting lucky in the job market? She responded, "No, that's stupid, now you can't even get a job at McDonalds without graduating. Not get any education, that's crazy." I asked her about her other brother's and sister's education.

Brooke's other brothers and sister all went to work after they graduated from high school. Brooke's following statement about her sister revealed the strong value and belief that Brooke had about graduating and going to work. She seemed to

respect what her parents had provided for her and her siblings. It seemed she believed that respect was shown by finishing school and going to work to support herself. She said:

I don't want help. My sister got every penny from them, I just have that attitude because she got everything. Mom and Dad pay her way, she's 20 and she's not even in college or nothin. She's got a job and just spends it. When I'm livin with them, I'll live off them, but when I'm not, I'm not doin that.

Brooke went on to elaborate on this same sentiment which revealed her strong commitment and her beliefs about how and why children show respect to their parents.

She said:

Yes, I mean these rich kids run around in their new sports cars, I mean I don't have a lot of respect for them because their parents bought them that stuff, but maybe it's that their parents have fortunes that they didn't have when they were kids, but you better be smarter than that, when parents buy them anything they want, or everything they want they're not goin to have respect them or for the things they have. Well, maybe they'll have respect for you.

Brooke's statements indicated the strong parent-child relationships that Brooke had developed. To further inquire about her family I asked Brooke what it was like growing up in such a big family and how she got along with her brothers and sister.

She said:

I used to get picked on because of my little teeth, and I never lost my baby teeth, I don't remember the age but like when you're suppose to, long after you're suppose, it wasn't mean teasing me, like family and my brother's friends would, it wasn't like mean. I think I just took it wrong. I think that's why I never wanted to go to school. Yes, I was quiet, I think it was my brothers and sister pickin on me all the time.

Brooke seemed to draw a cause and effect relationship between her brothers

and why she was quiet at school. Now that she is older, she believes that she misperceived her brother's intention, however, at the time of the teasing she believed this resulted in her being quiet to avoid drawing attention to what she believed were not positive characteristics in herself. Brooke believed that the fear of being teased caused her not to like to go to school. Because of the relationship between her and her siblings, and possibly because she was the youngest, she perceived being spoiled as another of her other personal characteristics. She said, "I always get what I want, it's the truth, it may take time, I think I'm spoiled." Brooke reported that she "never went to school." It appeared that her school attendance was influenced by her brothers' behavior and being spoiled. She felt that one of the ways her mother spoiled her was to allow her to stay home from school whenever she wanted. The interaction of these factors resulted in her not attending school regularly.

Brooke had attended the alternative school since it's beginning. This was her second semester. She was taking classes in all four core subject areas. Her class work was at the freshman level in all of her classes with the exception of science, which was at the sophomore level, specifically Biology 1. Her life skills' class was fulfilled by working at her family's business. She did not participate in basketball, she readily admitted that she did not like it. She would usually asked for permission to stay in the classroom to either do her work or visit with friends, or when basketball was the last activity of the day she asked to go home early.

Future Goals and Subgoals

When I asked Brooke what she expected to do in the future she quickly responded:

Now there's three main things I've always been interested in, psychology, interior decorator and photographer. Those are the three main things I've always been interested in. But I couldn't really ever decide, but I think I'd like photography because being a psychologist takes a lot of years.

Brooke did not mention graduating from high school as a future goal; however, in her interview data, in regard to her brother's not finishing high school, she said, "that's stupid, not get any education, that's crazy." This statement indicates that Brooke may have a well-established goal for graduation and developed a cause and effect relationship of how graduating from high school was related to future employment. This was also consistent with her belief that it was important to get a job and support herself to show respect to parents.

Another goal, pursuing a career in psychology seemed to be a possibility. When I came to work at the school she asked me for information regarding becoming a psychologist. She borrowed college text books from me and was especially interested in physiological psychology. However, in her interview her decision seemed to be more directed toward an occupation in photography. I asked her why she thought she wanted to be a photographer. She said, "because it's something I'm interested in. Its like science, I've done so much in science because I'm interested in it." Despite my attempt to ask her more about a career in science, she went on to describe what she knew about being a photographer. She had knowledge about the

school to attend, why she thought she would like the profession, and from whom she gained the information. She said:

What I wanna do, which I'm going to try to, and make myself do is I wanna go to school in Colorado for photography, because I love photography, there are just so many beautiful things that people just take for granted and then you can just show them.

I asked her if she had taken a lot of pictures. She said, "Yes, but I never develop them, money and just not getting them down there." To inquire as to the knowledge she had about the profession I asked her what she felt she needed to do to become a photographer. She replied:

I just have a regular camera. But my brother, the one who dropped out, knows for sure I'm goin to go to school, so he promised to buy me a car when I graduate, one that I want, which I really like that, and, the, some other family members are goin to give me a professional camera, or the money, so I can buy one. It's something that is fun and I'd enjoy and not get tired of, you know, you know, you can make some pretty good money and you get to travel a lot.

Brooke went on to tell, besides from her own picture taking experience, whom she learned about the school in Colorado. She said:

One of my brother's friends, but he was the one doin it. He showed me a lot of his pictures and showed me what you can do and let me take some pictures, with his camera, I don't know, I'd get to travel a lot and something I could enjoy doin all my life.

I also asked her if she had ever been to Colorado. She said, "No, never, I've just seen pictures that my brother has brought home. I may get to go, I think I want to live in a bigger city before I have kids." Brooke went on to tell about the type of working conditions, besides travel, that she thought she would enjoy as a

photographer. She told this about herself:

I'm very creative, and I think I'll really like it, photography. I want to work alone, but be around a lot of people, do you understand that? Um, I don't know, maybe what I'm talkin about, like my own business, and maybe have a lot of people around me. I like to do my own work but I like to be around other people, not that are doing my work or doing similar work, I mean, I like to do my own stuff. I mean, team work is fine, but it's not for me. It's the truth though.

These stories revealed that Brooke had established that she had to graduate from high school to further her education, and pursue a career. She had considered her knowledge about different types of occupations, taken into account characteristics about herself, used knowledge gained from others, had knowledge of the support she can get from her family, and had constructed cause and effect relationships that indicated that she had perceptions of herself accomplishing this future goal.

Because of Brooke's interest in physiological psychology, and my observation that she helped other students with science, I asked her if she ever thought about pursuing a career in science? She responded, "Oh, I don't know, I like it but I don't think I want a career in it. My main interest is in arts and crafts, paintings and pictures and stuff. Artist stuff, creativity, that's what I really like, that's why I think I'll really like it, being a photographer."

With this statement I turned the interview to her mention that she wanted children. Brooke said, "I want to go to that school, first, then I want to have kids. I do." She laughed when I ask, does this mean you also want to get married? She said, "Well, yes." She went on to say:

Well, actually I think I want to live with that person before I get married. Well, I mean, think about it, you're goin to live with that person for the rest of your life! To make sure, you're gonna wanna know how that person is gonna be all the time. I may not, won't have to live with them before I marry them, but I'll have to be really be close to-em before I marry them, cause I'm gonna wanna know hows he's gonna be. I mean sometimes like you can live with somebody two or three years, and then marry, and then it gets bad.

This statement suggested that Brooke had thought and seriously considered knowledge concerning the commitment of marriage. This was probably based on cause and effect relationships constructed from her own family. She stated that, "my parents have been married for over 30 years, that's a long time." She went on to tell about what she desired in her future spouse. She said, "Someone who loves me, pays attention to me, listens to me, helps me out when I need it. I don't know, I think I'll be looking for qualities like my brothers." She said that her future spouse wouldn't have to say that he loved her. She said, "They don't necessarily have to say it, they have to show it, like keeping promises, and stuff like that." I asked her what qualities her brother's had that she felt she wanted in a husband? She replied, "there's a lot of things, but I don't know if you can find all of those things in one person."

These statements suggested that Brooke identified the characteristics which would meet her expectations necessary for the commitment of marriage. Her future goal was to marry someday, and her subgoal was to know her future spouse very well before marriage.

Brooke told several stories about her own experiences with children which had shaped her perceptions of her own future family. She said, "Two for starters, twins,

I'd like to have twins, I want to have twins really bad." I asked her if there were twins in her family. She said, "No, no where, I've got to find a guy that has twins in his family every generation, because I want to have twins. It'll be a lot of hard work but I want to, I love babies."

With Brooke's love for babies and her knowledge in biology she very adequately constructed a cause and effect relationship to determine an additional genetic characteristic that would be required in her spouse. She went on to tell of her experiences that she had used to make the decision that she wanted children. She said:

I've babysat since I was 10 years old. A two week old, and which, I wouldn't let a 10-year-old take care of my baby, I mean you could tell what kind of parents they were. I was actually 11, I was a very very good baby sitter. I never really had any nieces and nephews, or little cousins. I think that's why I like babies. I've never really been around or had any. I mean I've been watching babies ever since I was little, even watchin them over night, which was bad, I mean, I think about it now and I mean I think oh my God, I would never let an 11-year-old watch my little 2-week-old baby, but I don't know, it just shows what kind of parents. I think it will be hard to send them to grandmas'.

Brooke felt part of her desire to have children was because there had not been any young children in the family since herself. She seemed to attribute her early babysitting as a fulfillment of this desire. It was through her experiences that she could perceive herself ready for the responsibilities of parenting. Although she had experience with young children, she undoubtedly had gained information from the care her and her siblings received from her mother. During the course of the research study her older brother's son was born. Brooke told this story which further showed

her love of babies and the importance placed upon family. She said:

I've had a lot of experience I guess, I stayed with my brother and his wife at the hospital when they had their baby. He's a month old now. I stayed with them all night. The mother was real tired and my brother would wake-up every time the baby moved and he'd ask me "What do I do ?" It made me feel real good.

Brooke's family had been a source of knowledge and support for her future goals of education, occupation and family. Most of the knowledge she had constructed concerning her understandings, values and beliefs as to what was important to pursue and how to pursue it had come from family members.

To inquire as to how her school experiences were related and have helped in shaping her future goals and plans she was asked why she chose to attend the alternative school. This information should help explain how her past knowledge influenced her perceptions of her future goals, and how her education fits in her plans for the future.

Alternative Decision

Brooke was asked to explain how she came to choose the alternative setting as her means of receiving an education. This information, of how the alternative school setting was perceived to help her reach her future goal to graduate from high school, further her education, get a job and have a family should provide insight as to what role education plays in her plans. She had not disclosed any specific information to indicate she had developed subgoals to graduating from high school. However, her stated choice to attend the alternative school provided information about her public

school experience. She gave this information concerning her choice to attend the alternative school:

Yes, they put me on the list. I didn't even know there was an alternative school. Last year I was sick, I found out I was a hemophiliac. I had lost a lot of blood, like six pints of blood, I couldn't study, I couldn't concentrate, I would always be sleepy and, I was really sick for about a semester, we didn't know what was wrong.

Her following story indicated that even prior to her being ill her educational experiences had influenced her perceptions between herself, teachers and education. She had reported that she didn't like school and frequently missed school, even in head start. I asked her if she had a plan to return to school and keep up with her work, and finish school? She said:

Didn't have one, no, they more or less pulled me in the office and kicked me out. I'm serious, they pulled me in the office and told me I should go to alternative school, more or less they were kicking me out. It was nice. I was all for it though. Oh well, it'd get me out of here. It'd be a lot better.

This story seemed to indicate that Brooke had less than a pleasant school experience and possibly her absences and the work missed prompted the school to place her in the alternative setting. I asked her what she did next? She said, "Went home and told mom. I think she might have gone up there. I mean I was being stubborn. I always am. They said I was going to have to do it."

Brooke went on to talk about herself, and how she handled herself in the principal's office when they told her she was going to attend the alternative school. She said:

And you know, I'm usually a sweet sweet person until, but if someone gets on my nerves then I'll go off on them. That's just how I've always been. I mean like my brothers, you be nice to them until they do somethin then you go off on them. That's what I do. I can be your best friend forever, I can be the sweetest person in the world. You do somethin that really makes me mad and I'll give you attitude.

It appeared that Brooke had developed a poor perception between herself and her education. To begin the inquiry as to the cause and effect relationships between herself and education she was asked to recall what she could remember about grade school.

Past Teacher and Student Interaction

Brooke started her recall with stories similar to those that most people might recall about grade school. Her stories began with perceptions of playing and quickly turned to negative experiences at school. Brooke recalled:

I guess, first thing I remember is playing on the playground in the 2nd grade with my cousins. Well, um, do you want to know about head start? Well, in head start I never liked to go, and I dropped out, guess I didn't like it, except I liked their eggs that they make at breakfast. Um, don't remember anything about first grade. I don't remember my teachers, I remember names but I don't remember what grade they were. Like all I remember is playing on the playground in 2nd grade.

She went on to say:

And my 3rd grade, I hated school, I didn't even want to go. Um, and my dad would always try to bribe me, to give me 5 or 10 dollars just to go to school. Um, one time, I don't remember what grade this was but the principal, he always pinched my shoulders to pressure me to go into class, and one day I kicked him. And he was telling my mom I was needing counseling. I went to counseling not even a year. I didn't even go very much and I whenever, he would tell me to go to class, if the teacher would come and ask me I would go, I just wouldn't go for him, to kind of be rebellious, I think it was Mrs.

Brooke tried to explain why she thought she felt this way toward school.

Many times throughout her interview she tried to find faults in herself for her unpleasant experiences. In the following excerpt she once again tried to explain exactly the reason why she didn't like school. She provided this explanation:

I don't know, I think like with me there is a process, I don't do something for so long, I set my mind, I'm very head strong. Even from head start, I didn't want to go and I think my mom thought I didn't want to be away from home, so she let me stay home, so I got in the process of not going, not having to go, so that's what I did until 3rd grade. I think I was spoiled.

Brooke went on to describe one of her grade school experiences which provided insight and seemed to be related to her perceptions of herself as she was told she was going to attend the alternative school. She said:

There was a red bird and blue bird group and I guess the red bird was the better readers and I was in the blue bird group. And I think that's why I never tried because they like classified me, as like I didn't do it very good. I think I didn't try very hard. I'd be rebellious so I think that's why I never or why I don't like to read now. I wouldn't say I can't read, just not very good, I just can't read fast and comprehend it.

Brooke said that she considered herself a very quiet student in grade school and it seemed that this might have been due to her lack of confidence in her abilities to do her work. It appeared that she gained this knowledge from being placed, or "classified" as a poor reader. When I asked her about her middle school years she said that she was quiet until her sixth grade year too. She said that she thought she was quiet because, "I think I was more worried about my brother." She said:

Um, because of what my brother did to me, my brother and his friends, they teased me all the time. I don't know, so I guess that always made me worry about it. He was in 8th grade when I was in 6th grade goin in the same school. And I was real quiet in the 6th grade because I didn't want my brother and his friends to pick on me again, and put me through that same situation, which I was older and I should have understood it better, but I just thought that would happen again.

Brooke once again seemed to blame herself, because she didn't take the teasing in stride, however, her perceptions of her brothers' teasing seemed somewhat overshadowed by the perceptions between herself and her teachers. Her perceptions of the low expectations of her teachers were evident in the following statement. She said, "I don't understand 8th and down, maybe they just didn't want to put up with me another year. I missed so much that wasn't excused maybe they just let me pass."

This statement indicated that Brooke used what she thought the teacher thought about her to build perceptions of herself as a student. Thus, Brooke seemed to construct knowledge primarily from others' believed perception. She used knowledge about what her brothers teased her about and how teachers' perceived her, to understand herself as a student. Therefore, the factors of her siblings and teachers influenced her perceptions of herself and her academic and social behavior at school.

To get information concerning exactly how she perceived herself as a student I asked her what kind of student she felt she was in middle school and how she liked her middle school years. She said, "It was Okay, I was still quiet, I never made good grades, never made good grades. I've always made around a D. And, I don't know, I don't have a good memory." She went on to talk about her attendance and work at

school. She said:

I never did it because I was afraid I would look stupid. I really don't know why they passed me. I'm serious. I don't know how anyone could get by with all of that. I never did any work, never went to school.

Once again Brooke directed her attributions to herself to account for why she wasn't a good student. I accessed her cumulative record to see if her perceptions of her grades and attendance were accurate.

In the first and second grade she was given the Metropolitan Achievement Test. In the first grade she scored above the 90th percentile in her total scores for reading and mathematics. Her total score for language was above the 60th percentile. Her total basic and complete battery scores were above the 70th percentile. Content clusters were in the high range in vocabulary, reading comprehension, and math concepts and problem solving. Language, science and social studies fell in the average range. In the second grade she was given this same tests again. Her language total score went up to the 90th percentile, and her reading, math dropped to just above the 50th percentile, and her basic and complete battery scores were at the 70th percentile. Her grades, beginning with the 3rd grade indicated she had a B in math, a C in English, a B in science and a B in spelling. These grades seemed to be fairly similar to her standard achievement tests. In the fourth grade she made a C the first semester in Reading and a D the second semester. In spelling she made a B and then a C. In language she made a C for both semesters. Math a D first semester and failed the second semester. In science she made a B first semester, then a D the second

semester.

In middle school her 6th grade year she made Cs, and Ds in all of her subjects. In the seventh grade she made Ds in all of her core classes and failed math. She made As in technology and art. In the 8th grade she once again made As in technology and art, a C in social studies, a D in Literature, and failed math, science and English. On her Iowa Tests of Basic Skills she scored below the 26th percentile in reading, the 13th percentile in language, 21st percentile in study skills, and the 15th percentile in math. Her basic composite score was at the 15th percentile. The number of absences at school ranged between 13 and 21 days each year.

Her cumulative record showed that she was above average in the first and second grade, and made better grades in the 3rd grade than she might have suggested by her statement, "I hated third grade." However, at that point her father was attempting to reward her for her school work with money.

In regard to her statement that she thought her memory was poor, I asked her if she had any special testing at school. She said:

No, I don't think so. I don't remember ever being told anything about that. It's kind of like they just over looked me, or something, they never tried to help, they already classified me as I wasn't going to do it very well. So I just don't like people to have that kind of opinion on me, or I'm not just not that out going that I will change everything to satisfy them, I'll just think, oh well.

This statement seemed to confirm that it was possible that Brooke's achievement was in part influenced by the perceptions she thought her teachers had of

her. I asked if there were any teachers who stood out in her mind. She told the following story:

Yes, Mrs. _____um, when I was sick, my first freshman year, I didn't want to do keyboarding one day because I was sick, so she'd always ask me well, are you goin to die of it. And I could have, because I lost a lot of blood, and she would just be so rude and it'd just make me so mad.

I asked her if there were any teachers that she thought took a special interest in her. She responded:

No, I don't think so. I liked my freshman science teacher. I mean I just like her attitude. She was like cool with everybody, not just because they were rich or they were in this group, or do you understand?

I responded, are you sure there weren't any teachers who you felt liked you more than others? She said, "No, I don't think so, that's interesting. No, they never did." Then Brooke paused for several seconds and said, "Well, it seems like there should have been." This statement indicated that in Brooke's perception there wasn't any teacher who took an interest in her as a student. Brooke's tendency to attribute her perceived academic failure to herself took precedence in her perceptions of herself. Other interacting factors included her perception that her brothers and sister were smart and didn't have any trouble in school, with the exception of one, whom she compared herself to during an interview. Therefore, it appeared the interacting factors of knowledge about herself, family, and teachers influenced her understanding of how or maybe if she would achieve in school. Brooke's tendency to use knowledge of how she thought others' perceived her might suggest that she also used what her peers

thought of her to shape her perceptions of peer friendships.

Past Peer Interactions

She was asked about her friendships to provide insight into her social perceptions of herself. This line of inquiry began with her statements:

Well, yes, um, probably, I was real quiet until like 7th grade. Then I got sick of being quiet and I just said, oh well, if they don't like me, that's too bad and since I've got a lot more friends.

I asked her if she worried about what other students thought about her. She replied, "Yes, all the time, like if I didn't wear something that was right or what everybody else would wear. I think I was more worried about my brother and his friends teasing me though." I asked her about playing on the playground with her cousins, if she played more with relatives than non-relatives. She said, "no, and, but I don't remember much about goin to school."

Past Subjects Liked and Disliked

When Brooke was asked what subjects she liked and disliked she responded:

I think I've always liked science, and I yes, and I liked music class, I got a big part in the music play and I was real excited, then is when I think I was starting to think I shouldn't be so quiet. Anyway, I was real excited because she picked me to have a big part in the play. A lead singer, I had a real big part, like usually, I would have a word or not even have a part at all, and I think that's when I became more out-spoken. I mean I thought that might be it, and I really liked getting a big part.

These statements indicated how much Brooke might have depended on others to provide her with information about herself. As long ago as grade school she could still recall the feeling she had and how it might have changed her outlook, and how this

new outlook might have gained her friendships. Her concern about what others' thought of her was an obstacle, not being quiet any more seemed to be the new strategy developed through her music class experience.

Past Obstacles and Strategies for Classroom Work

Brooke went on to talk about the strategies she used for her class work which was also centered on what she thought others' might have thought of her. She said:

Um, no, now really and yes, I really liked science, but when I tried I think I made better grades, but I never tried, I would forget my stuff at home, or forget to do it. And, I would think oh well, um, I'd rather have a 0 than a 30. That was my method of thinking all through school. If I had a 50 it would look like I wasn't trying very hard, but if I had a 0 it would just look like I didn't do it, so that was my method of thinking. That's what I got to think in my head so if I wasn't goin to make a good grade on somethin or it was too hard, I just wouldn't do it. I try things, it depends on what it is though. I used to skim thru things and that's what threw my grades, and I just didn't like reading.

It appeared that what others' thought was a an obstacle for Brooke. This shaped the strategies she used to overcome whatever she might have imagined others' thought. This seemed to influence her friendships and her academic behaviors. When I asked her about her attendance in school, she said:

Um, pretty bad. Sometimes I just wouldn't want to get out of bed, so I'd pretend I was sick or somethin. Didn't get held back until my freshman year. I don't understand that, I never went, or did any work.

This statement suggested that even attendance at school might have been influenced by how she came to perceive herself based on what others' thought. I asked Brooke what she thought when a teacher handed her a task to do, did she think

the teacher wanted her to learn something. She said, "No, I just felt like they didn't like me so they were given me stuff to keep me busy. I really didn't, I didn't like it, I know no one likes' it, but I didn't like it to the point I didn't do it." This might suggest that the cause and effect relationships that Brooke had constructed prevented her from even a mere approach to school work.

The stories that Brooke told identified the knowledge of the interacting factors of behavior, personal factors and environmental influences. These interacting factors, which seemed to be primarily based from the environmental influence of what others' thought, shaped beliefs about herself at school, and the reasons for her perceived failure. These beliefs determined what Brooke used to regulate her behavior. To describe the possible relationships between these past interacting factors and her beliefs about her present plans to continue in school, Brooke was asked why she chose to return to the alternative setting this year.

Present Teacher and Student Interactions

When asked, Brooke stated that she started back at regular school this year.

She said:

Yes, I wanted to try because I missed my friends a lot. And I missed them a lot so I wanted to go back and try and then, I guess, knowin I missed so much they classified me as a trouble maker. I was known for skipping, and so every time I'd miss they'd ask me. Well, where'd you go yesterday, and they just made me feel uncomfortable, like they just had the wrong opinion of me and that just made me mad, so I just came back to here and decided to catch up to try to be a junior next year, that's what I'm suppose to be next year.

She went on to say:

Yes, it's just they put me in the attitude that I just wasn't good enough, so, I just thought oh well, I'm not goin to stay there and just let them keep thinkin that, just move up and go somewhere else and do the best you can.

She added an additional reason why she decided to return to the alternative setting, she said:

Yes, it was the point of doing it at , on, your own pace, and I don't know, not waking up in the mornings, I'm not a morning person, that's one of them. I'm a very bad morning person, but that's not the main deal. I think it was all the stuff that I got from everybody at school, like um, if I missed one day then, I didn't want to come the next day because of what they would say. They'd say, well, what did you do yesterday, you know, just assume me as a trouble maker, skipping school and stuff.

It appeared that Brooke returned to alternative school based primarily upon what she had experienced in the past. It seemed that Brooke did not perceive a strategy to overcome her perceived obstacle of teachers in the regular school setting. I asked her if she thought teachers don't understand what students experience at school. She responded:

Yes, they don't, because they don't know their problems, like what their history was. If they always made bad grades, if they had reading problems, if they needed help with more to make them be better in school, but they just look at them, everybody like, like, everybody that's up here can do it and if they're not then, oh well.

Brooke went on to explain how the teachers at alternative school approach students' learning. She said:

That's what I like about alternative school, they understand, realize everybody runs differently, you can read aloud in a group, go off by yourself, study in a group, do whatever makes you feel comfortable, so you can do your work. And I like that a lot, because it's so much easier.

Brooke seemed to base, at least in part, her return to alternative school on a comparison between her past and present teachers. This supported that the interacting factor of teachers in the past had shaped her beliefs about what cause's success or failure in regular school. In alternative school she got her work done because it was an environment that not only had two teachers, but she also perceived their approach to students much differently than the teachers at regular school. In other words, the obstacle of teachers had been removed.

Present Peer Interaction

I asked her about the present friendships. She said that because of the hours that alternative school meets that a lot of her friends are older. She stated that she felt older than most of the students at alternative school, even though she was not. She also added that she felt older because she had so many older brothers and a sister that she lived with and had to get along with. I asked her if she ever worried about what peers think of her. She said:

I used to, now I don't, if they like me, if they don't they don't and I have a lot more friends because of that, because they like my attitude and stuff, but that's how I just figured it. Because I was so quiet in grade school, that um, I never had any friends, and I really missed out on a lot. I talk a lot, I guess I like to talk. I'm always saying I'm sorry for talkin so much, and it's like people smack me in the back of the head sayin, you don't have to apologize. I don't know why I say I'm sorry, I'm sorry.

Brooke had developed a new strategy and compared to her past peer relationships she had developed new perceptions of herself socially. This situation appeared to change in middle school and develop in her freshman year in regular

school. She had stated that she went back to regular school because she missed her friends. Her following statements indicated that she regretted having to leave her friends at regular school. She believed she had to return to the alternative setting because the teachers were an obstacle that she could not overcome and the only way to finish school was to return to the alternative setting. Although she left the regular school setting, she described her present approach to peer affiliations. She said:

I had, gosh, I had so many friends. Every time I come to school here, and they see me they say hey, how you doin. Like 50 people, it just makes me feel good. I used to be friends with a lot of people. Some of them don't speak to me now because I'm comin to school here, so it made me mad. I don't know what I was even doin hangin out with them. The little preps, but now I don't care, and they talk to me all the time now. It was one of those attitude things I get into, which I use to get into. Sometimes I can just be in an attitude kick, someone will look at me, like , and I just give em a go to hell look, especially girls, I hate meeting new girls. Um, guys I can be best friends, I mean it's like I can communicate with them because I have 5 brothers. And its a lot easier. If there's a group of girls and a group of guys and I'm standin in the middle I'll go talk to the group of guys. Because girls are so judgmental, just like me, I look at a girl and think, like look at that short skirt that girls' wear-en, and I'll think oh my god. You know, until I get to know someone I won't like-em at all. It's really weird. Sometimes I'm Ok with it, if their white or somethin, but sometimes I'll just walk in and sit with the guys, I mean sometimes I'll walk in and the girls will just look at me. And I'll think, excuse me.

The situations that Brooke described seemed to have helped shape new perceptions of ability for doing her classroom work, and of herself socially. In addition to her overcoming her quietness that she perceived prevented her from developing friendships she also had a statement regarding her perceptions of ability to do her classroom work. She said, "Um, I think I'm pretty smart, I just don't' try, and um, it's like on the computers it is quicker and faster and I get to see the results real

fast. I'm very impatient."

Present Subjects Liked and Disliked

Brooke had stated earlier her dislike for reading. This dislike seemed to be related to the perceptions that she had developed in response to the reading group her teachers had placed her in. Her Iowa Test of Basic Skills revealed a drop in her reading percentile range as she got older indicating that perceptions of her reading ability might have influenced her learning and performance. When I asked Brooke about what subjects she liked at alternative school she once again talked about her reading. She stated:

When I read, it goes in one ear and out the other, because I can't comprehend it, unless I go very very slow and like if I read it like twice, and then I can't do that because I'm very impatient, and I want to get thru things and sometimes I'll just skim and I used to skim thru things and that's what threw my grades, and I just didn't like reading.

I went on to ask if she checked books out of the library, or read books at home. She said:

A few times I have, that's like two books out of my whole life. In the last 2 years I've read two romance novels, about that, I think. Um, I know what was in them. Well, I guess. I think I have a good long distance memory, but not short.

However, she went on to say that:

If I decide if I'm goin to do something I'll do it, like Oklahoma history. I finished the book, it's something I want to get out of, I want, you know, what I mean, I want to get everything done and passed me so I won't have that much when I'm a senior. I don't want my senior year to be built up with things I should have done a long time ago. I'm looking ahead, because if I don't I'll have a lot of pressure on me.

Present Obstacles and Strategies for Classroom Work

Brooke seemed to have begun to develop perceptions of herself succeeding in school. Reading books seemed to possibly be a perceived obstacle to completing her daily work. However, in her last statement she said that she can do anything she decides she wants to do. I asked her what subjects she liked at alternative school and how she was going to accomplish them. She made these statements about her computer-based instruction. She said:

Its fast, easier and quicker feedback, it's stuff I remember from middle school, I think I'm pretty smart, I just don't try sometimes, I'm an impatient person. I stay more focused on the computers. I'll have to admit that I've learned a lot here, more than I've ever learned in regular school. For the 10 years I was there, I wasn't happy there. I have really tried to figure out why.

Even though Brooke hadn't exactly figured out why she felt that she had failed in regular school she had evidently begun to develop strategies for completing her daily work. In the past, her middle school grades indicated that she made As and Bs in technology and Cs, Ds and failed several of her subjects. She approached the computer-based instruction with some confidence with her knowledge of computers. The immediate feedback appeared to provide her with information concerning her perceptions of ability in specific domains. I asked her how she liked the computer-based programs and how she felt about her present progress. She said:

Yes, a lot, cause, this is the most work I've done in 2 years, I've done a lot in such a short amount of and I like to brag about it because I've made good grades and I am now, and my mom is rewarding me by buying me a new pair of boots. But I probably won't let her do it because I want most of this just because I did it. Not because I'm getting something for it, but if she's offering,

I might take a shirt or something.

This statement supported that her perceptions have been enhanced concerning her progress in learning. This statement also indicated that praise or rewards from family are also of importance. This appeared to be related to the close relationships her family members have and their support was obviously meaningful. To inquire how she might continue to progress and receive her family's praise I asked her how she planned on finishing her work so she could graduate and accomplish her more distant future occupational and family goals. She said:

I'm going to have to work really hard. Get my subjects. Which I know there will be times I want to slack off, I mean, there will be some days, I'll do so much yesterday and I'll want to quit, my mind will get boggled, maybe take off a day but then I'll come back and the next day and work really hard. I need a break every once in awhile.

Knowledge and Relationships of High School to Future Goals

Brooke was administered the future goal survey which asked her to rate the level of importance of various future goals and the importance of doing well in her present performance to accomplishing each of the future goals. The results of this survey are shown in Appendix C, Table 1 and 2.. She was also asked during interviews what might be obstacles to her expected future goals of furthering her education, getting a job and having a family.

Brooke rated the future goal of graduating from high school as very important and rated the importance of her doing well on classroom work as very important to reaching that goal. Brooke's knowledge about the importance of high school to

further her education and get a job was derived from vicarious and direct experiences within her family. Although she had rated her performance as fairly low in math and history, and her performance average in English and science she perceived her performance toward graduation as very important to graduating from high school. She believed that by accomplished her subgoal of high school graduation she could reach all of her valued more distant future goals, in turn she believed she would then show her parents how much she respected them.

When I asked Brooke what might be an obstacle to her future goals she said:

I'm doin pretty good. I've done a lot better. Last year, because I didn't figure they were goin to pass me (alternative school), there goes my attitude again. I figured they weren't goin to pass me again so I just sit in class and doodled all day, but this year I know I messed up last semester cause I could have had credits building up. It's goin to be hard if I go back to school (regular school) because its so much easier here because teachers in regular school are so much more demanding on you. They just want you to do it without help, to tell you what to do and they don't want you to ask them any questions, or anything, so I don't think I'll go back because its goin to be so demanding. I don't think I'll be able to do it. Yes, here they seem to understand that not everyone is alike, and does things, likes the same things and does them the same way.

This statement indicated that Brooke attributed her lack of gaining credits last year in the alternative setting to the attitude with which she approached school. She believed that returning to regular school would be an obstacle to her graduating. She identified that teachers at regular school would be the primary obstacle to her finishing high school . She compared teachers between the two settings and concluded that teachers at alternative school would be supportive of her finishing high school. With the obstacle of the types of teachers at regular school removed she then identified what

might be an obstacle in her present setting. She said, "I would like to know how many credits I need because I might get five credits and think I've done a whole bunch and quit. 'That's good enough.' But if I need nine then I'll work until I get it." Brooke felt that she might be tempted by her progress in her new setting to reward herself by quitting before she reached the required number of credits. This statement suggested that she knew she might need to seek information to ensure she gained enough credits to graduate. Her previous stated strategies suggested that her focus was on gaining credits to graduate. This implied that the number of credits or "gaining credits" was her subgoal

When I asked Brooke if there were any other obstacles that she might perceive in reaching her additional future goals she said:

Here lately I've looked forward to comin to school, I want to come to school so I can finish my credits I'm tryin to achieve. I think I have a memory problem. I would want to remember to take things home to get them done, but I wouldn't remember. It was confusing, going from one class and doin one thing, then movin to somethin else. I'd get confused, I think I really do have a memory problem. Here (alternative school) you don't have to take anything home. Yes, more than regular school. I think it was the time, it was like I was thinkin, lookin at it like, I'm not gonna have time to do this and I'm not gonna have time to do that, so I'm not gonna do it, because I don't have enough time. I try not to think about time, and I think I better. I think I'm pressed for time now because my goals are so much higher, but actually I don't think it's bothering me, I want to set my goals higher than I have. I like the computers because I think it feels faster because I get the results faster.

These statements revealed that Brooke thought her memory was an obstacle to her past performance. This statement was consistent with her interview statements where she referred to not doing her work in fear of looking stupid in front of her

peers. Rather than completing her work in less time than she felt she could accomplish it successfully, due to her reading ability, she would just not do it.

I asked her if she thought if she could use computers at regular school for all of her classes that she would go back. She said, "I couldn't put up with it." I asked her, "do you mean that the people would make you mad?" She responded, "Not people, I loved all my friends, I loved everybody, it was just the teachers that I couldn't stand." She went on to say, "Yes, I don't think I could put up with them (teachers at public school), that's what I meant to say. It's not that I wouldn't be able to do the work, because if I set my mind on something I would do it, but I'd get sick of them, how they treated me. I wouldn't want to put up with them." She continued with a response directed toward her teachers at the alternative school. She said, "Now, if it's not family, I'm here (alternative school), cause I really look forward to comin."

I asked her if there was anything else that might prevent her from reaching her future goals. She responded with this statement:

I want to be free, I don't want a time limit, a schedule. That's like photography, I can be my own employer, I can be on my own time schedule. Stuff like that, I don't like schedules. I hate havin a limit, a schedule to get things done like in school, "you have to be here and you'll get out later." It kills me. I feel, like, I'm already an adult, I hang around a lot of people who are already out of school, because that's all I got right now, because of this school. I'm out of school during the day and all my friends are in school. I mean, adults, I see them, they have all this freedom, to have jobs and stuff, and I'm not old enough, and I have to go to school. I don't know how it's goin to pay off. I just want out of here. Like photography, you need simple math, I've researched that, since we talked last, some science, they said only simple math, that sounds pretty good to me, maybe I can go be an apprentice, and go after somebody, learn from somebody else, like job training. That would be neat.

This statement seemed to reflect her past school experiences and her present sentiment about school in general. It also revealed once again another aspect of the obstacle of time. She seemed not only anxious to get out of school but also wished she did not have to take the time to attend school before getting the job that she desired in the future.

Brooke rated attending a junior or community college as important, and also rated her present performance in each of her core subjects as important to reaching this future goal. Attending a four year college was rated as somewhat important and her performance in her core subjects as somewhat important to the goal of attending college. These ratings were consistent with her future goal of becoming a photographer.

She perceived the expense of attending photography school in Colorado as an obstacle. She said: "I've got to think about money to get out of here. A grocery store, a car hop, a waitress, anything to get out of here. I'd like to work at a quick stop because I like to talk to people. I'm gonna have to work really, really hard on gettin, like a job and keepin that job so I can make money, so I can have extra spending money." I asked her how she would pay school expenses. She immediately described how she planned on paying for college. She said:

That's what I mean. I'm probably goin to have to pay for most of it. Um, I'm sure my mom and dad will help me out but they don't have much money so that's why I'll have to work on my own. Everyone in my family, my mom and dad probably could have helped them out more but they made them work and get their cars, and all that stuff, like that, and I really respect my brother cause

I think he was the only one that went out of high school and went to college, in Colorado, he paid for himself, I really like that cause I think it gives you more respect for your things, and what you've done, if you'd paid for it and not your parents, cause that's like you take it for granted. My dad is goin to get me this used car, it's got a new motor, and I will kinda be, but, I want to get it on my own, I want to get a job, learn how to get a loan and pay it back and do it on my own. I don't know, I don't know what I'm tryin to say. I'll just think I'll feel better about it, about myself, if I do it myself.

She had a strategy to use to accomplish the goal of becoming a photographer even if she couldn't attend the school in Colorado. She stated:

I really don't care "where" I go but I always wanted to go to Colorado, and I've heard good things about it and it sounds like a good place to go, so that's my goal. I know of some places here I could go, but I just want to get out, I've just never been out of this town, almost, I mean I've been to the city, but never really traveled, I just think it would be good for me to leave, out of this town. I've been in this town all my life, it's like school, I just want to get out.

Brooke reported on her future goal survey that getting a job after high school as very important. This was consistent with her previous statements of her desire to support herself. She rated her performance in English, math and science as very important to getting a job after high school, however she rated her performance in history as not at all important to acquiring a job after high school.

Consistent with these ratings and her interview statements she rated the importance of making money as very important, and rated her performance in English, math and science as very important to this goal. She once again rated history as less important. She actually rated the importance of history as of little importance to making money.

Brooke had substantial knowledge about her future goal of becoming a

photographer. She used knowledge of herself, what she liked, and what conditions she perceived she would like to work under. These factors all seemed to be related to her past experiences in school. In the past she withdrew from social interaction during academic work in fear of failure. Her strategy was to avoid doing her work because she feared being perceived as not being smart. Her perceptions of herself working alone might be related to the fear of experiencing this in a work setting. The profession of photography seemed to be consistent with her report that she liked doing creative things, and this was an area in the past which she reported she excelled in school.

Brooke's future goal of having a family was rated very important, and her performance in all of her core subjects, with the exception of history, as important. Her history performance was rated as of little importance. The importance of having a family was consistent with Brooke's interview statements about her family and the continued close interaction of all of her family members, at home and at work.

When I went on to ask about possible obstacles to marriage and having a family Brooke simply responded, "it's for the rest of your life, you better be makin the right decision." This statement indicated, that she had a very good idea of what kind of man she will be looking for, as she had said previously, "like my brothers." The simple statement that she made seemed to indicate that she really didn't perceive any obstacles to finding the right man and developing a relationship. This seemed to be related not only to having five brothers, but also to her description of her friendships,

now that she is not quiet. Her perceived ability to get along with boys better than girls also supported her perceived ability to develop a relationship with a future spouse.

Present Perceived Instrumentality of Present Tasks

When I inquired as to what she thought was the most important thing she needed to do to graduate from high school she said:

Get my subjects, study really hard and work until I get it done, that's really the only goal I've got right now, work until I finish it, that's what I figure to get this stuff done and over with, and I want to do it right, so I can pass. That's how I'm gonna do it, just study and do it. Yes, cause this will only make two credits and I don't know how many you have to have to make a freshman. Or to be a sophomore and then to be a junior. I'm just gonna work and work and work until I get the whole bunch, until they tell me.

It appeared from this statement that Brooke's subgoal to finishing high school was defined as just "get my subjects," and her strategy was to work until they told her she was finished. I asked Brooke if there was anything that she felt specifically needed to know to become a photographer. "Well, I don't know, that's why I mean to research it because I don't really know what's involved in photography. No, I haven't researched it very much. It's one of those things I'm interested in, I think it sounds like something I'd really like to do." By the last interview she had taken it upon herself to find the career search inventory on the computer-based program at school. She told me she had looked it up and all she needed to know was simple math. This seemed to be related to perceptions of her math ability from her past school experience. She indicated that she was relieved that this was the case. I asked her if there was anything else she felt she might need to learn to reach any of her future

goals. She said;

Nope, I don't think so right now. It don't come to my head. I mean, I'm not sayin I'm a know it all, I just don't know what I don't know yet. I'm sure there's stuff out there I don't know , but I don't know what it is yet. I know there's a lot more out there to learn.

When I asked her what, her strategy was to "get her subjects." She said:

Stay on what I'm doin, and not stop until it's finished, that's all I can tell ya. That's all I've been doin lately and thats all I'm gonna be doin for a long time, stay on it until it's done. Can you tell I just want to get out of here, this town, and school?

Perceptions of Ability of Present Classroom Work

Brooke was administered a survey which tapped her perceptions of ability in her core classes (Appendix D, Table 3). She rated her ability perceptions at different levels for different subjects. Her ratings for all core subjects ranged between agreement and usual agreement that she was competent. In history she usually agreed that she was certain she understood the material and confident in her understanding of the ideas taught and she felt she usually did as well as others in this subject. In English she usually agreed that she understood the material, was confident that she understood the ideas taught, and disagreed that she felt she did as well as others. In math she strongly disagreed that she understood the material, disagreed that she was confident in understanding the ideas taught, but compared to other students she felt she did as well as others. In Science she usually agreed that she was certain she understood the material, agreed that she understood the ideas taught, and agreed that when compared to others she did as well as they did. The remaining items tapping perceived ability

were all rated as “usually agree.” She usually agreed in all core subjects that she was confident that she could perform as well as others. Brooke's perceptions of ability seemed consistent with her past domain specific experiences and with her projected future goals. She had experienced success in science and developed adequate perceptions of ability. She was unsure of her perceptions of ability in math, although item ratings indicated that she might have felt this was true of most students. Therefore, she was able to maintain her perceptions of ability that she could accomplish her future goal of finishing high school and pursue a career in photography. Her perceptions of ability seemed consistent with the goals she reported for doing classroom work, and were related to the past, present and future. Her reported present perceptions of ability are supported by her statements in her interview. When she was asked if she felt like she was going to get her credits and graduate, she stated:

Yes, First time in a long time. Yes, it's like all those years behind me, it just seems like all those years have been drawn out so slow. Kind of like waiting to turn sixteen. I'm serious. I just want to get out of here, just like I want to turn sixteen, it just about kills me. I'm so impatient, because I'm spoiled. When I wanted it, I wanted it and now I want to get out of school.

Summary

Based on the knowledge Brooke had about herself, teachers, the teacher's perceived perceptions of her, her peer's perceptions of her, and her knowledge of her family she constructed cause and effect relationships to develop her future goals and plans. The content of her future goals, subgoal to education, her school experiences

and obstacles were consistent across subject domains, subjects liked and disliked, and with her teacher and peer interactions. Her goal of finishing high school was perceived necessary to pursue a career, get a job and show her parents that she respects them. Brooke compared her past school experiences with her experiences at the alternative school to determine that she was progressing toward her goal of graduating from high school and returned for the second year. Her alternative setting did not include the types of teachers that had made her feel she had low academic abilities. With the obstacle of these types of teachers removed she developed a subgoal to completing her education, "getting her subjects." She said that her strategy was to study really hard to get her subjects. She felt that if she did this she would progress toward her additional future goals.

Motivational Profile: Case Study 3

Brooke's value of her more distant goals would be expected to influence what she perceived as instrumental in the present to reach her multiple future goals.

Brooke's subgoal to finishing high school was stated as "getting my subjects." Her interview data suggested that gaining the required number of credits was the most important thing to do to acquiring a high school education. She perceived high school graduation as instrumentally related to furthering her education to getting a job, supporting her expected future family and showing respect to her parents. The model would predict that these interrelated future goals would influence the types and levels of valuing of subject content, present goals pursued, cognitive engagement, performance and self-regulation. Exploring Brooke's intrinsic, extrinsic and future valuing of subject content should give insight into what she perceived in the present as instrumentally related to accomplishing her future goals. The results of the survey tapping types and levels of valuing can be reviewed in Appendix D, Table 4.

Intrinsic, Extrinsic and Future Valuing

Brooke's responses to the items dealing with intrinsic, extrinsic, and future valuing varied across subjects, but were consistent among subject areas. The ratings of future valuing of her core subjects ranged from strong disagreement to the mid-range of the scale, usual agreement. She strongly disagreed that she would be interested in taking more courses in math and history in the future, however, she usually agreed that she would be interested in taking more classes in English and

science. She disagreed that she would be interested in learning more about math and history, and usually agreed that she would be interested in learning more about English and science. She disagreed that she would take more classes in math and history beyond what was required, although she usually agreed that she would take more English and science beyond that which is required. The range of ratings of the future value of taking more classes in her core subjects suggested that Brooke had very little interest in taking more classes in math and history, although, her ratings suggested that she had some interest in taking more English and science in the future.

Brooke's responses to items dealing with her intrinsic interest in her core subjects ranged from disagreement to agreement. She said she disagreed that she found the challenge, the interest, or the work enjoyable or satisfying in math and history. She said she usually agreed that she found the challenge, the material interesting, enjoyable and satisfying in English. She said she also usually agreed that she found the challenge and the work satisfying in science, and she moved from usual agreement to the rating of agreement that she found the material interesting and enjoyable in science.

Her responses to items dealing with her beliefs about the extrinsic future value of her core subjects were rated at the mid-range of the scale. All items were rated as in usual agreement and agreement. She agreed that having knowledge and being able to use knowledge from all of her core subjects would be of value to her future. She usually agreed that she found her core subjects of value and believed they would be of

help in her future work and career. She also usually agreed that knowing more about each one of her core subjects would be important to her future work and career.

Brooke's responses to the intrinsic, extrinsic and future valuing items appeared were consistent across each subject domain. Math and history were rated consistently by Brooke as being of less interest, and she would be less likely to take more classes in those subjects than in English and science. She also rated math and history as having less extrinsic value toward her future goals. Brooke's ratings of intrinsic, extrinsic and future valuing of her core subjects provided insight into what she believed was valuable subject material to gain at school. Although she reported finding more enjoyment in the challenge, the material more interesting and satisfying in English and science than in math and history, she agreed and usually agreed that all of her core subjects were important to her future career.

Repeated observations of the order in which she completed her daily work supported her interests and valuing of her core subjects. Five out of the seven observations she was observed starting her daily work with science. The other two days she was observed beginning her daily work with English. History was recorded as being the third subject she approached on three days, and math was observed being completed during two observations. The additional two days Brooke only worked on English and science. This indicated that Brooke's completion of her subjects followed what she reported she found the most interesting, satisfying and valuable to her future.

Brooke's responses to items dealing with valuing also followed the knowledge

she acquired about becoming a photographer. She found that science was an important subject to acquire, however her interest and perceived ability likely contributed to her working in this subject domain. Although she found math as less interesting and satisfying she knew that simple math was required for her future career. Her completion of work in math and history supported her reports of the extrinsic value for this subject rather than intrinsic interest. Brooke's ratings of value reflected what she was more interested in and what she believed was important for the future. Her results were consistent with what the model would predict. What she perceived as interesting was consistent with her perceptions of ability in science and likely the amount of knowledge she had gained. The levels at which she rated her subjects as valued to her future were also consistent with what the model would predict. Those subjects she believed were instrumentally related to accomplishing her future career were extrinsically valued. The types and levels of valuing would be predicted by the model to influence the types and levels of goals pursued during present tasks.

Immediate Classroom Goals

Brooke was administered the Introductory Survey on Learning: Revised, which asked her to rate her agreement with reasons why she does her present classroom work. These goal items provide an indication of the types of immediate classroom goals that Brooke perceived as important to accomplishing her subgoal of gaining credits, graduating from high school and pursuing a career and having a family. Her level of agreement with each goal item is presented in Appendix D, Table 5.

Learning and Performance Goals. Brooke's self-report on all learning goal items ranged from disagreement to strong disagreement. She disagreed that she enjoyed challenging tasks or that did her work in class because she liked to understand what she studied. She strongly disagreed that she liked learning interesting things or that she liked to understand really complicated ideas. She responded to these levels of disagreement for all of her core subjects. Although she reported that science and English was more interesting and satisfying, these subjects were rated at mid-range. This would not indicate a strong commitment to learning the subject content. This level of adoption of learning goals was also consistent with her subgoal of doing work just to get the credits required for graduation.

In regard to the performance goal items, Brooke reported, in all core subjects, on all items, that she strongly disagreed that she did her work to do better than others, to look smart to friends, score higher than others, to show people she was smart, or because she might get embarrassed. There was one item that she moved from strong disagreement to disagreement. She disagreed that she did her work because she didn't want to be the only one who couldn't do the work.

The present alternative setting had allowed her to reconsider her perceptions of ability, both socially and academically. In the alternative setting she did not have to use others' perceptions (friends and teachers) to evaluate her perceived ability. In other words, this setting places her in a position to base her perceptions on what she accomplishes rather than on what she thinks others' judgements are of her abilities

Brooke's lack of the adoption of performance goals is either due to the lack of the feeling the need to outperform others to evaluate her ability, or she simply does not encounter having to perform in front of her peers.

Repeated observations in which observers noted whether or not extrinsic incentives in the present situation might contribute to present motivation indicated that Brooke did not do her work for the present group incentives offered in the alternative setting. This was rated by all observers as always typical of Brooke. However, Brooke was observed three out of the seven observations working for an individual incentive. That incentive was noted by one observer as, "she will work through dinner break to leave school early." Although Brooke's past experience had not fostered academic motivation the alternative setting appeared to enhance her motivation to complete school. This was supported by her interview data that she just wants to "get out of here." Brooke's general motivational approach to her school work at alternative school was described by one observer as, "she has really excelled since we started on computer." This supports her idea that with computer instruction she will be able to gain her credits faster and "get out of here."

Goals for College. Brooke's belief that furthering her education for an occupation might be viewed as enhancing her present classroom goals of doing her work for college admission and scholarships. She usually agreed this was a reason for doing her present classroom work. She reported that she usually agreed that performing well and making good grades were important to college admission and to

receive money to attend. This was consistent with her desire to go to the school in Colorado to become a photographer, and the importance she placed on being able to support herself in furthering her education. Therefore, Brooke perceived that making good grades was important to her future goals of education, getting a job and supporting herself while in college.

Social Responsibility Goals. On all items that dealt with doing her work to please the teacher, were all indicated strong disagreement. She didn't do her work because she might look foolish in front of peers, teachers or family. She didn't do her daily work to make the teacher think she was a good student, nor did she do the work to make her teacher happy. These goals were consistent with her past perceptions of teachers.

She disagreed that she did her work because that was what school was all about and she usually agreed that she did her work because that was what you're supposed to do. The ratings of these goals for present work were consistent with her belief that gaining credits to graduate would lead to reaching her future goals. In other words, rather than viewing the importance of learning the material as most instrumental to the future, or being able to outperform others, it appeared that Brooke believed it was most important to gain the credits to graduate.

Brooke strongly disagreed that she did her work because she wanted her family to think she was a good student. This was related to the close and supportive relationships that she perceived her family had for each other. She stated that one

brother had not graduated, and her sister continued to get financial support from her parents. Brooke had perceived that her parents accept and support their children's accomplishments at whatever level reached. Brooke did agree she did her work to gain rewards from family, and agreed she did her work because they gave her things she liked. This appeared related to her past failure experiences and her father's attempt in the past to pay her to go to school. She now believed that going to school and getting an education was important to future employment and showing her parents respect. Due to her perceptions of her past failure, the added incentive of family rewards reinforced Brooke's perception that her parents were proud of her for progressing toward the accomplishment of graduating from high school. Brooke believed that graduating from high school and becoming self-supportive was important to please her parents and show them that she respected them.

Brooke's perceptions that education was related to future employment was evident in her ratings of doing her present classroom work for her future career. Her ratings for all of the items in all core subjects were rated with agreement that she did her present work because it was important to her future career. She agreed that she did her school work because good grades were important to getting a job after high school and getting the career she wanted in the future. The ratings were consistent with her college and occupational future goals. She stated in her interview that she needed to get a job after high school to help support herself in college, and had researched what subjects she needed to become a photographer. She also knew that

grades were important to being admitted to the school for photography. According to the model, Brooke's valuing of subject content and the goals she had chosen for present classroom work should influence the level of cognitive engagement she used to complete her classroom work.

Cognitive Engagement

Brooke's results for items tapping levels of cognitive engagement (Appendix D, Table 6) indicated that she usually agreed that she used both deep and shallow strategies while studying. In all of her core subjects she usually agreed that she considered whether a question could be answered in more than one way and would try new ways of answering questions. She reported she examined similar questions to help answer other questions and would work practice questions to check her understanding. She also reported she usually worked several questions that were alike to make sure she understood, however, she reported that she did not classify problems or questions while completing her work.

In regard to her report of shallow strategy use she usually agreed in all of her core subjects that she used memorization, past assignments and reviewed material to do her work and to study for tests. The use of similar cognitive engagement across all subjects indicated that despite her higher interest in English and science and her reported lower levels of valuing of math and history she engaged in all of her subjects with similar strategies.

One indicator of her investment in cognitive engagement and her interest in

learning as opposed to merely completing work included the observations of a student's use of the teacher and peers for the completion of tasks. Brooke was observed asking the teacher for help completing questions five out of the seven observations. One observer noted, "good about asking for help to make sure she understands the material." She also was observed asking peers for help four out of the seven times she was observed. In the past, Brooke seemed to avoid any situations where she might be compared or judged by teachers and peers. Her present perceptions of ability in the alternative school may have enhanced her use of teachers and peers as a resource of information to help complete school work. She was observed using teachers as a source to seek understanding, whether she used peers to seek understanding or to merely gain the answer could still be viewed as a change of strategy. In the past she didn't attempt doing her work in order to avoid looking bad in front peers and teachers.

The results indicated a mid-range of use of both deep and shallow processing. Her reported levels of cognitive engagement were as the model would predict. Her belief that gaining credits was instrumental to graduation and to pursuing her other future goals, supported the level of cognitive engagement she used to complete her daily work. This was consistent with the valuing of subject content and the types and levels of goals she chose for present classroom work.

Persistence and Effort. Survey items which Brooke answered in regard to her persistence ranged from agreement to disagreement. She reported that she usually

agreed that in English and science she would go over answers if she didn't understand the material and would keep working until she thought her answers were correct. She also usually agreed that she would go over her answers in history until she understood, however, in math she disagreed that she would do this if she didn't understand.

Additionally, she reported that she disagreed she would keep working in history and math until she thought she had the correct answers. However, Brooke self-reported that in all of her core subjects if she didn't understand she would try to get someone to give her the answer. Considering the just mentioned ratings of persistence items we might conclude that Brooke might persist to some degree before she asked peers or teachers for the answer. However, Brooke reported that in all of her core subjects that she usually agreed that she completed her work without checking for accuracy, would copy down the answer out of the book when available, or hope the teacher would explain the answer. She also reported that she usually agreed that she would give up and go on to the next question, however, she usually agreed that she would attempt to figure the answer out. Brooke's ratings ranged from usual agreement to disagreement indicating her persistence to understand the material was consistent with the levels of valuing, goals and cognitive engagement she reported. This is consistent with her subgoal of gaining credits rather than an attempt to gain a thorough understanding of material in her classes.

In regard to her effort, Brooke rated her effort in all of her core subjects as about average. She rated her achievement as fairly low in math and history, but rated

her achievement in English and science as average. This was consistent with her valuing of subject material which indicate where English and science were higher than in history and math.

Repeated observations supported her persistence and effort in her class work. When Brooke did tasks using text books observers noted that six out of the seven times she was present for observations she had to be told to return to work and did not stay on a task until completion. This was rated by all observers as an fairly typical daily behavior. Two of the observers noted during her tasks on computers that this behavior changed. She was observed staying on task, and was noted as not visiting with friends during tasks and not having to be asked to return to work six out of the seven observations. During the computer task observations the two observers rated her staying on task and completing tasks as almost always occurring. The third observer noted the change by stating, "since on computers Brooke stays on tasks and does not visit, or ask peers or teachers for help." This report of observations while using computer instruction and her statements in the interviews suggested that her perceived progression on computers might contribute to her enhanced perceptions of ability to finish school. Her persistence and effort may be enhanced because she perceived herself gaining credits faster. However, her valuing, goals for present tasks and level of cognitive engagement were consistent with the level of importance for subjects being related to future goals and specifically the occupational goal of becoming a photographer. She had good perceptions of ability to gain her credits in

science, and only simple math was required. Therefore, persistence and effort could be enhanced based on the rate that she perceived she could accomplish gaining credits on the computer. However, this would not necessarily change the types and levels of valuing, present goals and cognitive engagement. As the model would predict, her future goals, subgoals and perceptions of ability influenced her perceived instrumentality. She valued science more intrinsically but she valued all of her subjects more for their extrinsic value rather than for their intrinsic value. Therefore, consistent with the model, her valuing influenced present goals and cognitive engagement, persistence and effort. These were consistent with her perceived instrumentality of gaining credits to reach her additional valued future goals rather than a strong intent to gain knowledge. This would be predicted by the model to influence the level of self-regulation she used to complete her education and reach her additional future goals.

All three observers rated Brooke's compliance with general school rules as very typical daily behavior. Each day that Brooke was present during observations she was observed obeying the general school rules. One observer noted that the only behavior that needed correction from time to time was her use of the telephone during task work.

Self-Regulations. Based on the interview data Brooke's past, present and projected future goals and plans were interrelated. Her survey results indicated that her present valuing of subject areas and her classroom goals reflected multiple present goals and relationships to future goals and plans. Gaining the required subjects to

graduate was perceived as instrumental to graduating from high school, furthering her education, possibly becoming a photographer and supporting herself and her future family.

As shown in Appendix D, Table 6, Brooke's responses to items for her self-regulatory behavior, in her core subjects, were consistent across subjects with the exception of three items. These three items dealt with organizing her study time, having a clear idea of what she was trying to accomplish, and the ease with which she can set goals. Her response ratings across all items ranged from agreement to disagreement. She disagreed to these items in math and history. She reported that she agreed that it was easy to establish goals for English, and strongly agreed it was easy to establish goals in science. She disagreed that she organized her study time, and had a clear idea of what she was trying to accomplish in math and history. She disagreed that it was easy to establish goals for math and history.

She reported that she usually agreed, in all of her core subjects, that she planned out how she studied, checked answers to see if they are reasonable, organized her approach to start assignments, made sure she understood what the assignment was and took note of what she had not mastered. She disagreed that in all of her core subjects that she checked for errors as she completed her work. These self-regulatory reports of behavior indicated that Brooke had more regulatory behaviors that she used for English and science than for math and history. These results were consistent with her valuing of subject domains and her present classroom goals. Brooke rated

doing her work fairly high for family rewards and college admission. Her perceived abilities in English and science were higher than her perceived abilities in math and history. The goals, intrinsic, extrinsic and future valuing were also consistent with subjects liked and disliked in the past, and also seemed to be consistent with her subgoal of “gaining credits.” There appeared to be relationships to future goals as well. Simple math and some science were all that was needed to be successful in her projected future profession of photography. Her perceptions of ability in English and science were consistent with her valuing and self-regulatory behaviors.

Repeated observations indicated that Brooke’s management of her school behavior was consistent with her previous reports for valuing and self-regulatory behaviors. In order for Brooke to reach her subgoal of gaining credits she must complete daily tasks. Gaining the required credits for graduation was perceived by Brooke as her subgoal to finishing high school. She reported she worked in the family business and therefore had to coordinate working with gaining credits toward graduation. To understand how she coordinated her time between these daily activities repeated observations were used. She was absent two of the nine days on which observations were conducted. She was observed arriving late on the seven days she was present, and this was rated as fairly typical by the observers and myself. Five of the observations were noted with the time she arrived. She was approximately an hour late each day. She was observed promptly beginning her work upon arrival three out of the seven observations. One observer noted that she usually had to be

encouraged to start her tasks. Another observer noted that, “she got snacks and visited before she started to work.” I observed that she came to school with a coke from a local drive-in restaurant and made excuses for her late arrival. This observation, of not promptly beginning daily work, was rated as typical behavior by all observers. She was however observed as always having the supplies she needed to do her work. This was rated by all observers as very typical of her. Observations also revealed that four out of the seven observations that she began work promptly after breaks. The three times she did not begin promptly after returning from breaks she was noted as visiting with friends.

Brooke's interview report of the desire to be “free, as an adult to have a job” and the enjoyment derived from friendships may represent a conflict with her subgoal of gaining credits to graduate. Repeated observations suggested that she did not delay gratification of her desires to work at her job and be with her friends to arrive on time and return to work to gain her credits. Brooke's self-reported goals for present tasks, task valuing, self-regulatory behaviors and repeated observations indicated that she may lack a volition strategy after arriving to school that she may not adequately manage her academic and social goals. Her absenteeism, arriving late, talking to friends and not beginning work promptly appeared to support that conflicting goals interfere with adequately regulating academic behavior to accomplish her subgoal of gaining credits. Her self-report of academic regulatory behaviors in English and science indicated that she may more adequately regulate behavior in those domains

compared to behaviors in math and history.

In the past, Brooke's attendance was reported as, "I never went to school and I never did any work." Brooke perceived that her past teachers' attitude toward her prevented her from attending school regularly and completing her work. Considering her present perceptions of ability and the absence of direct teacher interaction with the self-paced computer learning, Brooke attends school fairly regularly and after some encouragement engages in her school work. We could conclude that Brooke was gaining her credits for graduation by delaying gratification to some extent and manages her classroom work with help from her teachers. As the model predicted Brooke's future goals, subgoals and perceptions of ability influenced perceived instrumentality. These instrumental relationships reflected the valuing of subject material and her choice of present goals. The types of goals then influenced the level of cognitive engagement, persistence and effort as predicted by the model. These factors influenced the level of self-regulation which would be predicted to influence her level of achievement.

Present Academic Achievement

Brooke self-reported doing her present classroom work for various reasons. Her goals included: doing her school work because it was important to her future career, for admission and scholarships for furthering her education and for rewards she received from her family. She also reported that she did her work because that is what you are supposed to do at school. These present classroom goals were consistent with

her past experience and her projected future goals. The valuing of subject material and present classroom goals supported Brooke's subgoal of gaining credits for graduating from high school. Her ratings as to why she does her present work also support her subgoal of gaining credits. Her goals were rated with the response that she usually agreed that she did her work for the previously mentioned reasons. She did not strongly agree that she pursued any goals during her classroom work. Also, the ratings of disagreement and strong disagreement for learning and performance goals suggested an absence of these goals for reasons to complete her work, which supports her subgoal of gaining credits.

Although Brooke's past experience had not fostered academic motivation the alternative setting appeared to enhance her goals for the future and contribute to her plans to reach them. Brooke's general motivational approach to her school work at alternative school was described by one observer as, "she has really excelled since we started on computer." I also observed that she was much less likely to visit with friends while completing tasks on the computer.

Brooke's present academic achievement included: the required credit for State history. This subject was completed by self-paced work with a textbook. At the conclusion of the research study she had completed 67 lessons in Physical Science to complete her credit for her freshman science credit and 39 lessons in Biology I, toward her sophomore credit. She also had completed all of her required lessons and gained a full credit for her freshman English. At the end of the research study she had not

completed any of the required lessons in math or any lessons in geography.

The completion of credits and work were consistent with the order in which she completes her daily work. Her classroom work and credits were also consistent with her valuing of subjects. The intrinsic valuing and perceptions of ability in science and the extrinsic valuing of English were consistent with her achievement in these classes. The half credit was earned in State history. This was a required subject and it was a considerably smaller book with less work to be completed than any other freshman subject. Her not gaining her world geography credit and math credit was consistent with her valuing and present goals for these subjects.

Brooke's rating of the level of importance of her future goals and the importance of her school performance suggested that her knowledge helped her identify what she believed was instrumental between the present, her subgoals and future goals. Instrumentality guided and directed her choices of her subgoal of gaining credits to fulfilling her requirements to graduate. Brooke regulated her daily behavior toward her expected future through her valuing of the perceived instrumental relationship between gaining credits and graduating in order to continue toward her other expected future goals of getting a job, being self-supportive and successfully supporting her own family. These goals were valued through the strong family identification Brooke had with her own family. Following this particular path to her future was believed respectful to parents for what they had taught her to believe was important.

Results: Representation of Data to Model

The third question for this study asks whether these data fit the model depicted by Miller and Brickman (1997). The model predicts that future goals are important incentives for present academic behavior. The model, more specifically, shows how students use both culturally transmitted knowledge and knowledge gained from immediate tasks in the school culture to help shape their beliefs about which future goals are possible and how the subgoal of education fits within the path to the future.

Miller and Brickman theorize that as students gain knowledge it is used in an ongoing problem solving process that results in a plan for the future (Kreitler & Kreitler, 1987). The plan reflects the individual's perception of the importance of education to the future and what needs to be done during present tasks to accomplish subgoals along a path to the future. The relationships between future goals, subgoals and present tasks, are constructed through vicarious and direct experiences. The strategies that develop in response to the perceived relationships continue to further define subgoals and how the subgoals of education will be important to the continued pursuit of their more distant future goals. Through the use of general heuristics the student decides what future goals are possible and decides what educational subgoals will ultimately be the most relevant to the accomplishment of these personally relevant future goals. Accomplishing instrumentally related subgoals of education influences the value of goals along a perceived path for the individual and the individual's perceptions of ability for continued pursuit of more distant future goals. In this

respect, the student not only observes, monitors and evaluates the goal perceived as instrumentally related in the present task, but also observes, monitors and evaluates and emotionally responds to their perceptions that they are continuing to accomplish instrumental subgoals, such as educational goals to reach their future. Thus, future goals gain value through successful accomplishment of more proximal subgoals, thus providing motivation for a larger self-regulatory system which operates off the cognitively represented plan for the future. The contingent relationships between the past and the projected future influence behavior on present tasks.

To determine whether these data fit Miller and Brickman's (1997) model, a cross case analysis was conducted. Each case was compared at each component of the model. This will allow examination, interpretation and comparison as to whether each case follows the model and the literature upon which the model is based.

Sociocultural Knowledge and Goal Valuing

In all three case studies the students' reported knowledge gained from their sociocultural context about education and various possible future goals and the order in which they were expected to be pursued. Each student participant began describing their future with educational goals, then possible occupational goals. If they did not include family goals they were directly asked. When responding, they each described how and why their educational and occupational goals needed to be accomplished first and strategies to coordinate the accomplishment of educational goals, getting a job and having a family. It was clear from their interviews that their valuing of education and

knowledge of its importance to reaching more distant future goals was the result of culturally transmitted knowledge (Nurmi, 1989; Trommsdorf, 1983).

In each case study sociocultural knowledge provided information to help the participant see the importance and instrumental relationship of education as a subgoal to their more distant life goals. As depicted in the model, the sociocultural knowledge contributed to the construction of why and how education was important to the future. In all three case studies the decision and the level of commitment to education as a subgoal was in part based on their identification with others' beliefs (Ryan et al., 1992). Through socialization education became an important goal that each student perceived must be attempted in order to reach their future goals within the social context (Nurmi, 1991; Trommsdorff, 1983).

Ryan's (et al., 1992), Nurmi's (1991) and Trommsdorff's (1983) research was directed toward the understanding of how socialization impacts commitment to goals. They have suggested that students either attempt to align to social norms, or they are socially controlled by social standards. Students comply because they desire to meet social norms, or comply because they would get in trouble if they didn't attend school or feel guilty if they didn't attempt this social norm. In either situation, these student participants made decisions of commitment toward education and additional future goals based on what "felt right" when they compared themselves to others like them. As cognitive theorists have suggested (Phillips, Nicholas and Ferrin, 1984; Tiedeman, 1967) , making decisions about the future requires commitment without a systematic

search because the future can not be a well-defined problem space. Students must commit in part based on comparison of themselves to others. As the model depicts, the knowledge used for comparison to others also contributes to the construction of general concepts of the self as a student.

Sociocultural Knowledge and General Concepts of Ability

Social comparison contributed to all three students' general self-concepts of abilities for academics and for future careers. All three students reported knowledge of how and why others like them had or had not accomplished high school graduation. This was consistent with the social cognitive approach that stated people use knowledge to categorize themselves as they do others (Cantor and Kihlstrom, 1987). Students compared themselves to others like them, such as, parents, siblings and cultural group members in regard to such personal characteristics as intelligence and others' intentions and goals for education (Markus & Nurius, 1986). In all three case studies students could report how and why others had or had not graduated and the others' career and family goal consequences of graduating or not graduating. Information seeking and attending to what family and cultural group members had or had not done contributed to the commitment and defining of subgoals to finishing school and their perceptions of ability to do so. Each student participant reported positive perceptions of ability to accomplish their high school education. As the model depicts, knowledge of past and present social and academic experiences combine to influence the development of subgoals and strategies and self-perceptions of ability.

Educational Experiences and Self-Concepts of Ability

In each case study the students reported obstacles to school achievement that resulted from their past experience. When students recalled their past educational experiences they revealed knowledge about the perceived past cause and effect relationships between themselves, teachers and peers.

The first case study participant (Selena) perceived her major obstacle to be ridicule by her peers. Her strategy to overcome this obstacle was to use the teacher as a resource. In the last two case studies (J.R. and Brooke), both participants perceived obstacles that they did not believe they had or could develop the strategies needed to overcome their obstacles. Therefore they did not develop any educational subgoals or strategies in response to perceived obstacles and abandoned academic goals. This was consistent with Oppenheimer's (1987) study where he found that when elementary children did not believe that they could overcome a perceived obstacle, they failed to plan.

When these students began attending the alternative school obstacles were either absent or new resources became available that allowed hope for overcoming the obstacles. With the absence of obstacles or the belief that they could overcome past obstacles all of these students reported higher perceptions of ability than in the past, and higher general concepts of ability to accomplish their subgoal of graduating from high school.

With the perceived ability to accomplish educational goals each of the student

participants also made plans of occupational goals for the future. They had knowledge about their abilities within domains to perceive possible future goals and believe that planning for the more distant future would be beneficial (Kreitler and Kreitler, 1987). These new beliefs represent more positive perceptions of continuing along the path toward the future. These student participants' interview data were consistent with what the model would predict. According to the model this new knowledge and their perceptions of ability would influence how these students now regulate their behavior on present tasks as they pursue subgoals to the future.

Relationships of Plans to Self-Regulation

According to the model, knowledge about future goals and subgoals is in part determined by general problem solving and learning strategies. These three student participants gained knowledge from their sociocultural context that interacted with their experiences at school to form perceptions of ability for accomplishing school and proceeding toward the future. However, these students differed in the extent to which they knew how and why an education was important.

Selena knew some specific ways in which education would help her reach her future goals and some specific aspects of education that would be beneficial. The other two participants had much less knowledge of this sort. As a result the way they thought about their future goals, and the plans they had, differed. The strategies that these students developed for present tasks reflected their sociocultural knowledge and their past educational experiences. This influenced what they stated they perceived as

instrumental in the present setting.

In the model perceived instrumentality influences present goal choices for classroom work. Surveys and repeated observations were used to provide evidence that knowledge from past and present social and school contexts influences the value associated with various goals and the development of self-concepts of ability. These in turn determine present goal choice and influence cognitive engagement, performance and self-regulation.

All three student's reported multiple future goals, with the primary subgoal of education as a primary subgoal to other future goals. Theories directed toward the idea of the coordination of multiple goals (Wentzel, 1991; Ford, 1990) suggest that goals, whether near or in the distant future, are pursued according to importance. The students' responses to the future goal and the performance survey were consistent with the subjects they liked, disliked in the past and present, and reported as valuable to their specific future goals of education, occupation and family. Their perceptions of ability in their subjects were also consistent with their possible future goals. Also consistent were their reports of intrinsic, extrinsic and future valuing of subject domains to future goals. Repeated observations showed that all three students completed daily work in an order that was consistent with their valuing of core subjects, which was also consistent with the content of their future goals. This suggests that they attempted to manage and regulate the completion of their daily work based on what they perceived as most important to graduating from high school

and continued pursuit of their specific occupational future goals. Therefore, each student had determined, based on their knowledge of future goals and the subgoal of education, what was the most important task to pursue in present classroom work.

Also showing consistency in content were the strategies and the perceived instrumentality they reported with the type and level of present goals they were most oriented to pursue. According to the model, the extent to which students perceive tasks as instrumental in the present setting predicts the level of cognitive engagement, performance and self-regulation of present work and regulation toward the future. In all three cases, the goals that the students self-reported were consistent with the expected types and levels of cognitive engagement, persistence and effort that would be predicted by theories (Maehr, 1984; Dweck and Leggett, 1988; Miller, et al., 1996). Repeated observations of the students' behavior in class were consistent with students' reported level of cognitive engagement, persistence and effort that the student self-reported on surveys.

In all three cases the students' achievement levels in subject domains were consistent with their valuing for classroom work in specific subjects, the strategies they used and what they stated as instrumental. The content of these subjects and reported perceptions of ability also had shown content similarities to types of future goals. Credits earned and lessons completed were consistent with their reported valuing of core subjects. According to the model, students observe, monitor and evaluate their current performance to continue along their path to the future. Each

student's self-regulation was as predicted by theory (Pintrich & DeGroot, 1990; Zimmerman, 1990). Each student's level of self-reported self-regulation corresponded to the types of goals, subjects reported as liked and disliked in the past and present, and the subjects reported as important to their future educational and occupational goals. This was consistent with the model in that students self-regulate present work to accomplish subgoals to reach more distant future goals.

All three student participants' self-regulation was influenced by their knowledge of the past, present and projected future. They developed plans for their future goals and developed strategies to accomplish these goals, as the model predicted (Miller and Brickman, 1997). Their present classroom goals were consistent with their reported subgoals and future goals from the interview data and the survey tapping the importance of future goals and what they perceived as instrumental to pursue in their present performance. Present goals reported were consistent with their self-reported levels of cognitive engagement, self-regulation, persistence and effort as would be predicted by theory (Miller et al, 1996; Schunk, 1994; Schultz, 1993; Wentzel, 1991; Pintrich & DeGroot, 1990; Zimmerman, 1990; Maehr, 1984).

All three students' plans for the future influenced their achievement motivation as predicted by the model. Present cognitive engagement and self-regulation were found to be influenced by the knowledge they had about future goals, subgoals, strategies and the instrumental goal they determined was the most important to pursue in the present setting. All three case studies revealed that perceptions of ability and

general concepts of ability enhanced the planning process based upon their perceived control of the educational environment. This planning process was self-regulated to accomplish their most important present goals so they could graduate from high school and continue toward their additional valuable future goals..

Chapter IV

DISCUSSION

This research was conducted to gain a better understanding of how perceptions of the future influence achievement motivation. Qualitative methods were used in this investigation with the intent to generalize to theory (Yin, 1994, 1984). This study was designed to examine the explanatory utility of a model of future goals and self-regulation. Unique cases were selected to conduct an in-depth look at the knowledge students hold about possible future goals and plans, and how their plans might be related to their present academic achievement. Support was found for the overall model through the descriptions these students gave about their plans for the future, and their self-reports concerning the goals they pursue during present tasks. These goals were consistent with the content of future goals they reported in their interviews. As predicted by the model, students' sociocultural knowledge and school experiences were found to influence the development of future goals, subgoals, the strategies, perceived instrumentality and general self-concepts of ability. In turn, instrumentality was found to influence the types and levels of goals pursued during present tasks and the types and levels of cognitive engagement, performance and self-regulation.

Investigating this small unique sample provided support for the idea that students' social and academic behavior at school is guided by a larger self-regulatory system which includes a representation of a plan that motivates and directs behavior toward what is anticipated in the future. Clearly, similar investigations with students

from different educational settings, different ages, levels of achievement, cultures and gender would enhance the understanding of the knowledge that students come to use to plan the future and self-regulate their social and academic behavior at school.

Below I will discuss the important findings from this investigation, provide suggestions for future research and identify some of the practical implications that can be drawn from the present findings.

Support for the model's depiction of the contribution of sociocultural knowledge on the types of future goals these students had were consistent with previous research that investigated the goals that are most commonly pursued by adolescents, across cultures (Nurmi, 1991; Trommsdorff, 1983; Sundberg, Poole and Tyler, 1983). In addition to the types of future goals students came to value through socialization this investigation also revealed that through identification, the students came to perceive themselves having specific abilities to pursue certain types of occupational goals (Ryan, et al., 1991, 1992). The socialization and identification that these students reported were major sources of knowledge students used to recognize that education was necessary to reach self-relevant future goals. All three participants made statements reflecting the knowledge they had gained from their sociocultural context about how education was important to more distant life goals. These results indicated that knowledge about "how" and "why" education is important to the future helps shape the value students place on education. Consistent with the model and literature presented, the results of this study indicated that this type of sociocultural

knowledge influenced the value and the level of commitment students made to completing their education to pursue their occupational future goals. This set in motion, information seeking for the generation of a system of subgoals to include education in their plans to reach future goals. Further research directed toward the understanding of the knowledge that parents and significant others hold, and how this knowledge is successfully transmitted would contribute to the understanding of the specific knowledge students need to enhance their valuing and planning for education, which in turn would ultimately enhance academic achievement. This information would also enhance the development of interventions for students who do not have the opportunity to gain this knowledge. Additionally, interventions might be developed for parents who, do not have this knowledge, or who do not successfully transmit this knowledge to their children.

Also shaping the types, value and level of commitment to goals were students' general self-concepts of their ability to reach future goals. In this study, comparison to others' was an important factor influencing the value of education and the types of occupations and family goals that students said they were most likely to pursue. The students compared themselves to others, and made comparisons of their abilities to others like them to plan subgoals to education, and to characteristics of occupations (Cantor and Kihlstrom, 1987). These types of comparisons to others who had graduated or failed to graduate from high school influenced the students' perceptions of ability for graduating from high school and influenced their level of valuing and

commitment to education. These types of comparisons to the “self” and the context characteristics of education and occupations are consistent with Markus, et al., (1986, 1987, 1988) whose research suggested that the “now or working self” is compared to the possible future self. In this study students compared themselves to other adults who helped shape their perceptions of themselves in the future. Further research on the process of comparison, such as, how and why students identify with others and contextual factors influencing this process would shed light on how this knowledge impacts perceptions of ability and planning. Also, this type of research would enhance the development of interventions that might help students focus on making appropriate comparisons for the planning of subgoals to reach their more distant occupational and family goals. Information of this nature would also be helpful in understanding how misrepresentations of perceptions of ability develop when using comparison. This too would aid in the development of interventions to help students change the misperceptions that inhibit both positive perceptions of ability and the planning of educational subgoals related to the future.

Another important finding of this study was the students’ intrinsic and extrinsic valuing of present classroom work. Students’ past valuing of specific subject domains was consistent with the types of future goals students had reported in the interview (Lens, 1998; Miller, Greene and Debacker, 1998). The results of this study suggested that the development of subgoals linking the present to the future appeared to be related to the elaboration of knowledge. The more detailed plans of the first

participant (Selena) resulted in a more detailed report of subgoals and strategies used to accomplish what she perceived as instrumental tasks to pursue during current classroom work to reach her various future goals. The relationships between future goals and present classroom work was also apparent in the other two participants reports; however, when they recalled past school experiences they could not report subgoals or important things to learn at school. It appeared that with less elaborate knowledge gained from both social and academic experiences their plans did not include the range of subgoals necessary to perceive and enhance the value and instrumentality of present tasks.

Further research examining how subgoals develop and the impact elaboration has on valuing of future goals is needed. This may provide insight into the gaps of knowledge that students have that prevent them from defining subgoals that help link the present and future. Having this knowledge would enhance the likelihood of students being able to commit to future goals, their plans, and self-regulate their behavior along a path to the future. This information might be a basis for creating interventions helping students gain the knowledge needed to develop more effective plans and self-regulate their behavior toward future goals.

The results of this study also showed that the task context influences what is perceived as possible in the future and the subgoals included in students' plans. As mentioned, students' past experiences at school were reflected in the present goals they chose, and their perceptions of abilities to accomplish the goal of education.

Their past experiences in school were consistent with what they perceived as possible in the future. Student participants clearly constructed cause and effect relationships for success and failure at school in general, and within subject domains. The factors that emerged as the causes for failure were consistent (e.g. peers ridicule, peer affiliation and teachers prejudice) with the obstacles the student reported. The lack of elaborateness of knowledge gained from the social context, and direct experiences at school seemed to interact and influence what was perceived as an obstacle, and what resources were available at school to overcome an obstacle. This provided evidence of planning. Students had used problem solving to determine what caused success and failure, the student responded with either strategies to overcome obstacles, or changed or abandoned goals. Certainly, further research on the problem solving heuristics students use is needed. This information might provide insight into how general problem solving heuristics influence defining of future goals and influence the plans students make.

When the student participants began attending the alternative school they recognized that former obstacles were no longer barriers to achievement. New subgoals were identified and strategies developed in the absence of past perceived obstacles. The absence of obstacles produced enhanced perceptions of ability, and the belief in the possibility of reaching future goals. This change in perspective lead to the development of subgoals to finish school. With new subgoals, students perceived instrumental tasks to pursue during current classroom work. Continued success on

the tasks they faced in the alternative setting enhanced perceptions of ability and plans to finish high school. With these enhanced perceptions students reported higher general concepts of ability for successfully following their plans to the future.

The value of the alternative school setting for these student participants was clearly the removal of environmental obstacles. Students perceived new subgoals, instrumentality and developed strategies to accomplish what they perceived important to do during classroom work to accomplish graduating from high school. With the accomplishment of classroom goals perceptions of ability were enhanced. Perceptions of instrumentality were related to immediate task goals, cognitive engagement, self-regulation and the accomplishment of subject domain credits.

The students participating in this research clearly perceived the alternative school as a means to complete their education and proceed toward the future. The subgoals that students reported having were shaped by sociocultural knowledge, past and present experiences, and projected possible future goals. The knowledge gained from these sources set the standards for their subgoals to complete high school. The subgoals these students chose influenced what was perceived as instrumental to attain in the alternative setting and the learning strategies they developed. For example, Selena perceived learning to read, write and understand English as critical subgoals for her future success. J. R., on the other hand, saw graduation itself as the critical subgoal and the accumulation of credits as the essential task. Brooke had identified that certain subjects were critical to her possible future occupation, her critical subgoal

was gaining specific subjects to reach her possible future occupation. The present goals and strategies used by these students influenced the level of self-regulation to accomplish subgoals and their possible future goals.

In the alternative setting these students' perceptions of ability and planning were enhanced; however, the quality of instruction is important to enhancing learning of specific subject content. Regardless of the type of future goals a student has the relevance of school work is in part dependent upon what is learned. This allows the student to appropriately define subgoals and perceive instrumentality of present tasks to their future goals. The alternative setting used both whole class instruction, with self-paced completion of lessons and tests, and self-paced computer instruction. Both of these modes of instruction required the student, for the most part, to be self-motivated. Students who perceive obstacles and have low perceptions of ability in specific subject content, even in the alternative setting, are not likely to learn from either type of instruction. However, the quality of continued learning influences perceptions of abilities and the further defining of subgoals. These subgoals are used as a standard for completion of high school. Clearly without a high quality of instruction to foster learning students will not develop subgoals with standards that are important for the successful accomplishment of their possible future goals.

The results of this study suggest possible practical implications. If students do not have sociocultural knowledge that helps them explain how and why education is important to more distant occupational and family goals they are less likely to value

education. This would inhibit them seeking information to identify and define subgoals to perceive instrumentality in present tasks and develop effective strategies to learn. Can students who lack sociocultural knowledge develop perceptions of possible futures and plans based solely through successful school experiences? Research concerning the concept of resiliency supports this type of future research. Research done by Gordon (1995) on resilient African American high school students found that students living in similar social contexts, which included low socioeconomic status and low level of achievement of parents, differed in their school success. Included in the interpretation of the results of Gordon's (1995) study showed that higher achieving students had a strong desire to avoid remaining in similar living conditions as an adult. However, the results of the present study suggest that even if students wish to avoid specific future possibilities it may be unlikely that they can commit to and continue along an ill-defined path of subgoals that does not foster perceived instrumentality of present tasks to the accomplishment of more positive future goals. Could resiliency and the impact of future goals of students be better understood by examining whether or not a student had developed possible positive future goals and plans to avoid negative possible futures, through a history of continued school success? This idea would be consistent with research by Oyserman and Markus (1988) research on the interaction between the negative and positive future possible selves.

Another practical implication is related to teacher expectancies. Teacher expectancies have been found to be related to students' school achievement (Eccles, et

al., 1983,1995). The results of this study suggest that teachers would benefit from knowing how sociocultural knowledge impacts future goals and subgoals, which subsequently impact the perceived instrumentality of present classroom goals. Teachers' understanding that students perceive certain goals in present tasks as instrumentally related to future goals should help the teacher develop goals within instruction to meet the student's needs or to move students to more appropriate present classroom goals. This knowledge should help the teacher form expectations that align with the student's goals and help the student and teacher identify appropriate attributions to the causes of student's learning problems. This situation should help enhance the student's perceptions of ability, which in turn, would enhance achievement motivation through the perceived progression of reaching the incentives of future goals.

The support found for the overall model suggest new intervention possibilities for school counselors to help students reach their potential. Counselors need an understanding of how a student's sociocultural knowledge, or lack thereof, has influenced future possibilities, subgoals, strategies and perceived instrumentality of school tasks. Counselors having more knowledge about how plans develop and influence self-regulation of school achievement is important for student achievement and success in the future. With an understanding of the model presented by Miller and Brickman (1997) counselors can help students fill in gaps of knowledge and provide knowledge to help change misrepresented knowledge.

Gaps in knowledge and misrepresented knowledge can possibly occur within the social context of one's culture and school contexts. Counselors exploring students' experiences that have shaped beliefs and self-defining goals across contexts and time can help design classroom and family interventions to enhance the perceived value of and commitment to education, and strengthen students' perceptions of abilities to accomplish their various future goals.

Counselors' understanding of Raynor's (1974) concept of future orientation, Gjesme's (1983), de Volder and Lens' (1982), Nuttin's, (1984) concept of future time perspective, Markus and Nurius' (1986) concept of possible future selves, and Miller and Brickman's (1997) concept of future goals would benefit intervention for student achievement. As one example, through experiences self-identity and general self-concepts develop and influence goal commitment and valuing (Erikson, 1950; Marcia, 1980; Harter, 1987; Ryan, et al., 1991, 1992). As students experience school tasks self-identity develops and shapes perceptions of abilities for possible futures. This might suggest that social and academic experiences during specific developmental periods could enhance effective planning and strategy development, or might prevent the student from self-defining future goals and making effective plans. According to the concept of future orientation, future time perspective and possible future selves, through experiences students develop a general orientation, or develop perceptions of ability to succeed or fail at specific types of tasks and reach specific types of future goals. The time period in which very meaningful experiences occur influence the

subjective length of time since it's occurrence and the recall of that experience. A very positive or a very negative experience could be used to evaluate ability and determine the approach or avoidance of specific present tasks. Therefore, understanding how experiences within the social and school culture interact to shape possible future goals and plans is important for creating individualized intervention to change misperceptions of abilities so that students might approach present tasks to continue to develop potentials in all subject domains (Gjesme, 1983; Markus & Nurius, 1986).

Clearly, the research findings suggest many possibilities for further research which incorporates knowledge from both the teaching and counseling professions. The support for the model, literature presented and the findings of this study suggest important aspects of the model that need further research. The present findings, however, suggest an important type of knowledge for the educational preparation of teachers and counselors. The results of the present study suggest that approaching the development of educational instruction and interventions within the larger-self-regulatory system of the student is important. The present findings also suggest the most effect interventions should include a coordination between student, teachers, counselors and parents.

References

- Adler, A. (1929). The science of living. New York, NY: Greenberg, Publisher, Inc.
- Adler, A. (1927). Understanding human nature. New York, NY: Permabooks.
- Ames, C. and Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. Journal of Educational Psychology, 30, 260-267.
- Ames, C. and Ames, R. (1984). Systems of student and teacher motivation: toward a qualitative definition. Journal of Educational Psychology, 73, 535-556.
- Anderson, J.R. (1990). Cognitive psychology and its implications. New York, NY: WH. Freeman and Company.
- Ansbacher, H.L. and Ansbacker, R.R. (1956). The individual psychology of Alfred Adler. New York, NY: Basic Books, Inc.
- Astin, A.W. and Nichols, R.C. (1964). Life goals and vocational choice. Journal of Applied Psychology. 48, 50-58.
- Bandura, A. (1995). Self-efficacy in changing societies. Cambridge: Cambridge University Press.
- Bandura, A. (1986). Social foundation of thought and action. Englewood Cliffs, NJ: Prentice-Hall.

Bembenutty, H., and Karabenick, S.A. (1997). Academic delay of gratification scale. Paper presented at the Annual Meeting of the American Educational Research Association. Chicago, Ill.

Brickman, S.J., Miller, R.B. and Roedel, T. (1997). Goal valuing and future consequences as predictors of cognitive engagement. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Ill.

Borg, W.R. and Gall, M.D. (1989). Educational Research: An Introduction, (fifth ed.). White Plains, NY: Longman.

Cantor, N., and Kihlstrom, J.R. (1987). Personality and social intelligence. Englewood Cliffs, NJ. Prentice-Hall.

Corno, L. (1993). The best-laid plans. Education Researcher, 22, 14-22.

De Lisi, R. (1987). A cognitive-developmental model of planning. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp. 79-109). Cambridge: Cambridge University Press.

Dodge, K.S., Asher, S. R. and Parkhurst, J. R. (1990). In C. Ames & R. Ames (Eds.). Research on motivation and education, 3: San Diego: Academic Press.

Dreher, M. and Oerter, R. (1987). Action planning competencies during adolescence and early adulthood. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp.321-355). Cambridge: Cambridge University Press.

Dweck, C. and Leggett, E. (1988). A social-cognitive approach to motivation and personality. Psychological Review, 95, 256-273

- Eccles, J. (1983). Expectations, values and academic behaviors. In J.R. Spence (ed), Achievement and achievement motives. (pp. 75-146). San Francisco: Freeman.
- Eccles, J. and Wigfield, A. (1995). In the mind of the actor: the structure of adolescents' achievement task values and expectancy-related beliefs. Personality and Social Psychology Bulletin. 21, 215-225.
- Eisenhart, M., and Borko, H. (1993). Designing classroom research. Boston, MA: Allyn and Bacon.
- Emmons, R.A. (1986). Personal strivings: An approach to personality and subjective well-being. Journal of Personality and Social Psychology, 51, 1058-1068.
- Erikson, E. H. (1950). Childhood and society. New York, NY: Norton.
- Ford, M.E. (1992). Motivating humans: Goals, emotions, and personal agency beliefs. Newbury, CA: Sage.
- Fyans, L.J. and Maehr, L.M. (1990). "School culture" student ethnicity, and motivation. The National Center for School Leadership. Grant No. RII7c800003.
- Gjesme, T. (1983). On the concept of future time orientation: Considerations of some functions' and measurements' implications. International Journal of Psychology. 18. 443-461.
- Glesne, G., and Peshkin, A. (1992). Becoming qualitative researchers. New York, NY: Longman.

Gordon, K. A. (1995). Self-concept and motivational patterns of resilient African American high school students. Journal of Black Psychology, 21. 239-255.

Goals 2000: Educate America Act. (1996). Goals 2000: Local reform. Appropriation: 91 5/60500.

Greeno, J.F., and Berger, D. (1987). A model of functional knowledge and insight. Office of Naval Research with Contract N00014-85-K-0095, Project NR 667-544.

Harter, S. (1987). The determinants and mediational role of global self-worth in children. In N. Eisenberg (Ed.) Contemporary topics in developmental psychology. New York: John Wiley and Sons.

Harren, V.A. (1979). A model of career decision making for college students. Journal of Vocational Behavior, 14, 119-133.

Heppner, P.P. (1978). A review of the problem-solving literature and its relationship to the counseling process. Journal of Counseling Psychology, 25, 366-375.

Havighurst, R. J. (1974). Developmental tasks and education (3rd ed.). New York, NY: McKay. (Original work published in 1948).

Jersild, A. T. (1963). The psychology of adolescence (2nd ed.). New York, NY: Macmillan.

Klinger, E. (1977). Meaning & void: Inner experience and the incentives in people's lives. Minneapolis, MN: University of Minnesota Press.

Kreitler, S. and Kreitler, H. (1987). Plans and planning: their motivational and cognitive antecedents. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp. 110-178). Cambridge: Cambridge University Press.

Kuhl, J. (1987). Chapter 18: Action control: The maintenance of motivational states. In F. Halisch and J. Kuhl (Eds.), Motivation, intention, and volition. Berlin Heidelberg, Germany: Springer-Verlag.

Lens, W. (1998). The motivational significance of future time perspective. Paper presented at the 6th Workshop on Achievement and Task Motivation. Thessaloniki, Greece.

Locke, E.A., and Latham, G.P. (1984). Goal-setting: A motivational technique that works! Englewood Cliffs, NJ: Prentice Hall.

Little, B.R. (1987). Personal projects and fuzzy selves: aspects of self-identity in adolescence. In T. Honess & K. Yardley (Eds.). Self and identity: Perspectives across the lifespan (pp.230-245). London: Routledge & Kegan Paul.

Maehr, M.L. (1984). Meaning and motivation: Toward a theory of personal investment. In R. Ames and C. Ames (eds.), Research on motivation in education: Student motivation.1 (pp. 115-144). San Diego, CA: Academic Press.

Markus, H., and Nurius, P. (1986). Possible selves. American Psychologist, 41, 954-969.

Markus, H., and Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. Annual Review of Psychology, 38, 299-337.

- McCracken, G. (1988). The long interview. Newbury Park: Sage.
- Mischel, W. and Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. Psychological Review, 102, 246-268.
- Mischel, W., Shoda, Y., and Peake, P.K. (1988). The nature of adolescent competencies predicted by preschool delay of gratification. Journal of Personality and Social Psychology, 54, 687-696.
- Miller, R.G. Greene, B., Debacker, T. (1998). Future goals and task valuing. Poster presented at the Annual Meeting of the American Educational Research Association. San Diego, CA
- Miller, R.B. and Brickman, S.J. (1997) Back to the future: An examination of the role of future goals in proximal self-regulated learning (manuscript in preparation).
- Miller, R. B., Greene, B., Montalvo, G., Ravindran, G. and Nichols, J. (1996). Engagement in academic work: The role of learning goals, future consequences, pleasing others and perceived ability. Contemporary Educational Psychology, 21, 388-422.
- Miller, R.B., Greene, B., Henderson, L.K., Brickman, S.J., and Krows, J. (1995). Future consequences: A unidimensional or multidimensional construct? Paper presented at the American Educational Research Association. San Francisco.
- Newell, A., and Simon, H. (1972). Human problem solving. Englewood Cliffs, NJ: Prentice-Hall.

Nurmi, J. E. (1987a). Adolescents' future orientation, life span, and socialization in the family context. A poster presented at the IX Biennial Meeting of International Society for the Study of Behavioral Development, Tokyo. (Eric Document Reproduction Service No. ED 289 615.

Nurmi, J. E. (1987b). Age, sex, social class, and quality of family interaction as determinants of adolescents' future orientation: A developmental task interpretation. Adolescence, 22, 977-991.

Nurmi, J. E. (1989a). Development of orientation to the future during early adolescence: A four year longitudinal study and two cross-sectional comparisons. International Journal of Psychology, 24, 195-214.

Nurmi, J.E., (1993). The effect of others' influence, effort, and ability attributions on emotions in achievement and affiliative situations. The Journal of Social Psychology, 131, 703-715.

Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. Developmental Review 11, 1-59.

Nuttin, J. (with coll. W. Lens) (1984). Future time perspective and motivation. Leuven University Press & Lawrence Erlbaum Associates. Motivation et perspective d'avenir.pp.10-41.

Nuttin, J. (with coll. A. Greenwald) (1968). Reward and punishment in human learning. In d'Ydewalle and Lens (eds.), Cognition in human motivation and learning. Lawrence Erlbaum Associates, Inc.

Ogbu, J.U. (1992). Understanding cultural diversity and learning. Educational Researcher, 21, 5-14.

Oppenheimer, L. (1987). Cognitive and social variables in the plan of action. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp. 356-394). Cambridge: Cambridge University Press.

Oyserman, M, and Markus, H. (1988). Possible selves and delinquency. Paper presented at the International Congress of Psychology, Sydney, Australia.

Patton, M.O. (1981). Creative Evaluation. Sage Publication, Beverly Hills. London.

Patton, M. O. (1980). Qualitative Evaluation Methods. Sage Publication, Beverly Hills. London.

Peshkin. A. (1987) The goodness of qualitative research. Educational Researcher, (22), pp.24-30.

Phillips, S.D., Pazienza, N. J. and Ferrin, H.H., (1984). Decision-making styles and problem-solving appraisal. Journal of Counseling Psychology, 31, (4). 497-502.

Pintrich, P.R., and DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of Educational Psychology, 82, 3340.

- Randall, R. A. (1987). Planning in cross-cultural settings. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp. 39-78). Cambridge: Cambridge University Press.
- Raynor, J.O. (1974). Relationship between achievement-related motives, future orientation, and academic performance. In J.W. Atkinson and J.O. Raynor (eds), Motivation and achievement (173-180). New York: V.H. Winston & Sons.
- Raynor, J.O. (1981). Future orientation and achievement motivation: toward a theory of personality functioning and change. In d"Ydewalle and Lens (Eds), Cognition in human motivation and learning. Lawrence Erlbaum Associates, Inc..
- Raynor, J.O. and Entin, E.E. (1983). The function of future orientation as a determinant of human behavior in step-path theory of action. International Journal of Psychology 18, 463-487.
- Ryan, R., Connell, J.P. and Grolnick W.S. (1992). When achievement is not intrinsically motivated: a theory of internalization and self-regulation in school. In A.K. Boggiano and T.S. Pittman (eds.), Achievement and motivation: A social-developmental perspective. Cambridge: Cambridge University Press.
- Ryan R. M. and Stiller, J. (1991). The social contexts of internalization: Parent and teacher influences on autonomy, motivation, and learning. In : Maehr, M.S. & Pintrich, P.R. (Eds.). Advances in motivation and achievement, Vol. 8. Greenwich, Conn.: JAI Press.

Scholnick E.K., and Friedman, S.L. (1987). The planning construct in the psychological literature. In S. L. Friedman, E.K. Scholnick, R.R. Cocking (Eds.), Blueprints for thinking. (pp. 33-38). Cambridge: Cambridge University Press.

Scholnick E.K., Friedman, S.L. and Cocking, R.R. (1987). Blueprints for thinking. Cambridge: Cambridge University Press.

Schunk, D.H. (1994). Goal and self-evaluative influences during children's mathematical skill acquisition. Paper present at the annual meeting of the American Educational Research Association, New Orleans.

Schutz, P. A. (1993). Long-term educational goals, learning strategies use and academic performance for high school students. Paper presented at the Annual meeting of the American Educational Research Association, Atlanta, GA.

Stake, R. (1994). Chapter 14. Case studies. In N. Denizen and Y. Lincoln, (Eds.). Handbook for qualitative research, pp. 236-247.

Steele, C.M., (1997). A threat in the air. American Psychologist, 52, 613-629.

Steinberg, L., Dornbusch, S.M., and Brown, B.B. (1992). Ethnic differences in adolescent achievement. American Psychologist, 47, 723-729.

Sundberg, N.D., Poole, M.E. and Tyler, L.E. (1983). Adolescents' expectations of future events: A cross-cultural study of Australians, Americans, and Indians. International Journal of Psychology, 18, 415-427.

Super, D.E., and Hall, D. T. (1978). Career development: Exploration and planning. Annual Review of Psychology, 29, 333-372.

Tiedeman, D. V. (1967). Predicament, problem, and psychology: The case for paradox in life and counseling psychology. Journal of Counseling Psychology, 14, 1-8.

Trommsdorf, G. (1983). Future orientation and socialization. International Journal of Psychology, 18 381-406.

Urdan, R.C. and Maehr, M.L. (1995). Beyond a two-goal theory of motivation and achievement: A case for social goals. Review of Educational Research, 65, pp. 213-243.

de Volder, M.L. and Lens, W. (1982). Academic Achievement and future time perspective as a cognitive-motivational concept. Journal of Personality and Social Psychology, 42, 566-571.

Weiner, B. (1984). Principles for a theory of student motivation and their application within an attributional framework. Research on motivation in education: Student motivation, 1, 16-37.

Weiner, B. (1994). Integrating social and personal theories of achievement striving. Review of Educational Research, 64, 557-573.

Wentzel, D.R. (1989). Adolescent classroom goals, standards for performance, and academic achievement: An interactionist perspective. Journal of Educational Psychology, 81, 131-142.

Wentzel, K.R. (1991). Social and academic goals at school: Motivation and achievement in context. In: Maehr, M.L. & Pintrich, P.R. (Eds) Advances in motivation and achievement, Vol. 7. Greenwich, Conn: JAI Press.

Wentzel, K.R. (1994). Relations of social goal pursuit to social acceptance, classroom behavior, and perceived social support. Journal of Educational Psychology, 86, 2, 1-10.

Wilks, J. (1985). The relative importance of parents and friends in adolescent decision making. Journal of Youth and Adolescents, 15, 322-334.

Yin, R. (1994). Case study research: Design and methods, (2nd edition). Thousand Oaks Sage Publications.

Yin, R. (1984). Case study research: Design and methods, (1st edition). Thousand Oaks Sage Publications.

Zimmerman, B. J. (1990). A social cognitive view of self-regulated achievement: an overview. Educational Psychologist, 25, 71-86.

Appendix A

Interview Guide Observation Form Surveys

Interview Question Guideline for Future Goals and Plans

Autobiographical Record:

To respondent: I would like you to tell me about yourself, especially about you as a student. In my profession I have to ask this question of people a lot. We very seldom go through life bragging about the things we do really well. If we hear someone bragging about themselves all the time, we might think that as a little different. And, if we heard someone talking about only things they don't do well, we might think that a little strange too. We really very seldom talk about ourselves and what we do really well, and things we wished we could do better. We know ourselves better than anyone else though, and I want to know about you. I would like to have you start telling me about yourself as a student, starting as far back as you can remember. As an example, when you were in grade school, what do you remember the best. What subjects, games played on school ground, friendships, did you have any special things you really liked to do when you were young, what were you good at, and what did you think about yourself as being good or not so good at when you were young?

Research Questions 1: How do students represent knowledge in their plans for the future?

After the autobiographical data at the end of the first interview:

To respondent: What do you expect to accomplish in the future? What you expect, aspire to, and dream to accomplish in the future are different things. I want to know what future goals you really hope and expect to accomplish.

Prompts: give examples of future goals - social and academic future goals

What knowledge about their future goals does the student hold?

To respondent: What kinds of things do you know about (each) the future goal? Tell me in as much detail as possible everything you know about this goal?

Prompts at appropriate points of each future goal: time, age, location, abilities or skills required, related school subjects, person characteristics, why do people try to reach this particular goal?

To respondent: Can you think of any reasons why you might not reach this future goal?

What plans does the student have to reach the future?

What subgoals does the student have for reaching the future?

To respondent: How do you plan on reaching this goal? Try to tell me the steps in your plans, or the things you will have to do to reach this goal?

Prompts: the researcher will tell the student that the research will take notes during this question, the steps or subgoals the student cites. Then in the next question when asking the respondent for details the researcher can help them remember the steps they stated. (End first interview)

What knowledge about subgoals does the student hold?

To respondent: I've listened to the tape from the last interview and written everything down that you and I said. Sometimes when we hear our own voices and the way we state things, it sounds pretty funny. However, this is who we are and you should be proud of what you have been able to tell me about what you think you expect to accomplish in your lifetime. Even when we state things that we hope we can avoid, it's a sign of us preparing to be adults. Lets read together what we both said last time and then we'll go over the future goals you told me about. If there is anything that you've thought about that you would like to add or change, or even take out, we can do that. You told me about the things you know about your future goals, now I want you to try to tell me everything you know about each one of the steps in your plan to reach this goal.

Does the student perceive any obstacles in the past, present or future in reaching their future goals?

To respondent: There are things that can get in our way of accomplishing or getting what we really want. Is there anything that you can think of that might get in the way of your reaching your future goals?

Notes: Are there indications of the students possible perceptions of self? What is perceivable as controlled by self or others?

To respondent: What has happened in your life, what have you seen, that makes you feel pretty confident that you are going to reach this (each) future goal? What kinds of things have happened? Have you encountered anything that made you stop and think, "well, maybe I won't or can't reach this goal? What are some of those things? How did you finally determine that you could go ahead and keep working or heading toward your future goals?

Prompts: are there any abilities that you think you might need to improve, or gain?

Note: Are there any other people the student thinks might get in the way?

To respondent: What kinds of things have you done today that lets you know that you can reach your goals?

Prompts: depends on which goal - academic or social. Both types of goals will be probed for by the researcher. Example: social domain - having a family, what kinds of things did you do today that leads you to believe that you can get along, understand, or have a relationship with others? What kinds of things have you done today that lets you know you can take responsibility and follow the orders given to you by an employer - give an example of a request fulfilled today. Academic domain - are there things have you done today in school on assignments that you think will be important to your future goals? When your teacher gives you a task what is the first thing you think about? (Instrumentality - goals for present task).

Why did you decide to go to the Alternative School?

To respondent: What kinds of things have happened today that might make you think you might not be able to reach your goals?

To respondent: What kinds of things might happen in the future that could prevent you from reaching your goals?

Prompts: the researcher will ask for examples similar to that of the questions above. Specifically, for these two questions the probes or prompts will center around whether causes of these obstacles are internal or external, and what are the possible perceptions of the self.

Where, or from whom did the student acquire their knowledge about future goals and plans to reach them?

Notes: Was this information learned vicariously or through direct experience? What, if any, are the specific indications that knowledge learned during classroom activities contributed to the development of knowledge about future goals, subgoals and perceptions of abilities?

To respondent: How do you know you can reach your future goal? Do you know someone who has reached this goal? Are there things that you do well or plan to learn to do so you can reach this goal? What have you already done to prepare for reaching this goal?

Prompts: who taught you, are you good at certain subjects in school that lets you know that your can accomplish this goal? Or have you had a job that is similar?

What is it that you like about this school?

Are there subjects that you feel you are good, or weak in?

What kinds of things are important to learn at school?

What kinds of things do you do everyday at alternative school to help you get reach your future goals?

Why did you decide to return to the alternative school?

What are the most important things to learn to reach your future goal?

How will you help ensure that you will reach your future goal?

OBSERVATION FORM: DISSERTATION RESEARCH PARTICIPANT# ____

Please circle the appropriate answer for each yes and no question.

Please rate the frequency of the occurrence of the behavior.

1=never 2= occasionally 3=most of the time 4= almost always 5= always.

Please include in your observation any specific behavior that occurs along with the observed behavior, or any inferences or evaluations of the behavior (Notes). When the observed behavior indicates possible ordering of subjects or time on task, or not on task, or talking with friends, etc., please indicate order or amount of time, etc. in note section. Also, please write-in any consistent behaviors of the student that are indications of motivation, responsibility to school, family, helping peers, or anything you think represents this students' motivation toward school endeavors. Please list these in the boxes provided at the end of the form. Please write any general comments or specific information you feel is relevant to the students' motivation, or lack there of.

Observed behavior	Frequency rating of behavior	Notes
1. In what subject order did the student complete their work today? Please list order:	Is this a typical subject order for this student? 1 2 3 4 5	
2. Did the student arrive to school on time today? Yes No [If not, did they state reason why? (write in note section)]	Does this student usually arrive on time? 1 2 3 4 5	

<p>3. Did the student begin work promptly upon arriving to school?</p> <p>Yes No</p> <p>[If not, what did they do?] (note section)</p>	<p>Does this student typically begin work promptly?</p> <p>1 2 3 4 5</p>	
<p>4. After official or self-administered breaks did the student resume work promptly?</p> <p>Yes No</p> <p>[If no, indicate what they did in note section]</p>	<p>Does this student typically resume work promptly?</p> <p>1 2 3 4 5</p>	
<p>5. Did the student have the supplies readily available to complete their school work today?</p> <p>Yes No</p> <p>[if not, indicate what they lacked and why in note section]</p>	<p>Does the student typically have supplies available to complete school work?</p> <p>1 2 3 4 5</p>	
<p>6. Does the student have to be told to stay on task?</p> <p>Yes No</p>	<p>Does the student typically have to be told to stay on task?</p> <p>1 2 3 4 5</p>	

<p>7. Did the student ask for help from teachers today?</p> <p>Yes No</p> <p>[Does the student seek understanding, or the "answer"? [note section]</p>	<p>Does this student typically ask for help from teachers?</p> <p>1 2 3 4 5</p>	
<p>8. Did the student ask peers for help with school work today?</p> <p>Yes No</p> <p>[if so, did they seek understanding or "answer"]</p>	<p>Does the student typically ask peers for help?</p> <p>1 2 3 4 5</p>	
<p>9. Did the student converse or "visit" with friends during task work?</p> <p>Yes No</p>	<p>Does the student typically visit with friends during task work?</p> <p>1 2 3 4 5</p>	
<p>10. Did the student stay on task until completion?</p> <p>Yes No</p> <p>[if not, please indicate in note section what they did to interrupt task work]</p>	<p>Does the student typically stay on a task until it is completed?</p> <p>1 2 3 4 5</p>	

<p>11. Did the student comply with the general school rules today?</p> <p>Yes No [if not, what rules were not followed?]</p>	<p>Does the student typically follow the rules at school?</p> <p>1 2 3 4 5</p>	
<p>12. Did the student work for some incentive today, such as; playing computer games, basketball, leaving early for lunch?</p> <p>Yes No [if so, indicate what incentive in note section]</p>	<p>Does the student typically work for incentives?</p> <p>1 2 3 4 5</p>	
<p>13. If a class incentive was offered today, did this student encourage others to ensure getting the incentive?</p> <p>Yes No { if yes, indicate type of encouragement, if no, indicate what the student did to possibly prevent class getting incentive}</p>	<p>Does the student typically encourage others to ensure getting class incentives?</p> <p>1 2 3 4 5</p>	

General Comments:

Introductory Survey on Learning: Revised

Directions: The following statements represent beliefs students may have about their ability in school subjects and reasons that students might have for doing school work. Read each statement and indicate how much you agree that it is true of you in each subject. Then use the 5-point scale to indicate your response for each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

1. I do the work assigned in class because I want my family to think I am a good student.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

2. I do the work assigned in class because I don't want to be embarrassed about not being able to do the work.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

3. I do the work assigned in class because I like to work hard on challenging tasks.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

4. I do the work assigned in this class because I don't want to be the only one who cannot do the work well.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

5. I do the work assigned in this class because I like to understand the material I study.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

6. I do the work assigned in class because that is what school is all about.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

7. I do the work in class because I get money or other rewards from my family for earning good grades.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

8. I do the work assigned in class because good grades are important for college admissions or scholarships.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

9. I do the work assigned in class because I don't want to make my family unhappy.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

10. I do the work assigned in class because doing well is necessary for admission to college.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

11. I am certain I understand the material presented in class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

12. I am confident I have the ability to understand the ideas taught in this course.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

13. I do the work assigned in this class because I don't want to look foolish or stupid to my friends, family or teachers.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

14. I do the work assigned in class because I don't want others to think I'm not smart.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

15. Compared to other students my skills are weak.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

16. I do the work assigned in class because I like to do better than other students.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

17. I do the work assigned in class because I like to understand really complicated ideas.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

18. Relative to other students, I think I am in this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

19. I do the work assigned in class because I can show people that I am smart.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

20. I have a good understanding of the material in this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

21. I do the work assigned in class because performing well is required for admission to college.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

22. I do the work assigned in class because I want teachers to think I am a good student.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

23. I do the work assigned in class because that is what my family expects me to do.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

24. I think I am doing better than others in class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

25. I do the work assigned in class because it will help me get into the career I want after I graduate from high school.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

26. I do the work assigned in this class because I get things that I want from my family for doing well.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

27. I am confident I can perform as well or better than others in class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

28. I do the work assigned in class because I don't want my teacher to be unhappy with what I've done.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

29. I do the work assigned in class because if I do well my family gets me things that I like.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

30. I do the work assigned in class because doing well is necessary for getting the job I want after I graduate from high school.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

31. I do the work assigned in class because that is what the teacher asks me to do.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

32. I do the work assigned in this class because I want to look smart to my friends.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

33. I do the work assigned in class because that is what I'm supposed to do.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

34. I do the work assigned in class because good grades are important for getting into my future career.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

35. I am confident about my ability in this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

36. I do the work assigned in class because I like learning interesting things.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

37. I do the work assigned in class because I like to do better than other students.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

Survey on Learning: Follow-up - Revised

Directions: The following questions ask about how you view you school subjects. Read each statement and indicate how much you agree that it is true of you in each subject. Use the 5-point scale below to indicate your response in each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

1. I plan on taking more classes in this subject.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

2. I enjoy the challenge of this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

3. I find learning this subject interesting.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

4. I find working with this subject enjoyable.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

5. Being knowledgeable about this subject will be of little value to me in the future.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

6. I am interested in learning more about this subject in the future.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

7. Being able to use this subject will help me in the future.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

8. This subject has little to do with my future work.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

9. I will need to know more about this subject for my future work.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

10. I plan on taking more classes in this subject even if they are not required.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

11. I think working in this subject is personally satisfying.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

Directions: The following questions ask about some of your specific behaviors as you study for your classes. Read each statement and indicate how much you agree that it is true of you in each subject. Use the 5-point scale below to indicate your response for each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

12. Before a quiz or exam, I plan out how I will study the material.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

13. When I finish working on a question I check my answer to see if it is reasonable.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

14. When I work on assignments, I analyze it to see if there is more than one way to answer the questions.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

15. When I finish working on practice assignments, I check my work for errors.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

16. I organize my study time well for this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

17. I examine examples that have already been worked to help me figure out how to do similar questions on my own.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

18. I have a clear idea of what I am trying to accomplish in this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

19. If I have trouble with assignments I'll try to get someone else to give me the answers.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

20. I try to complete homework assignments as fast as possible without checking my accuracy.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

21. If I have trouble understanding something I go over it again until I understand it.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

22. I classify questions on assignments into categories before I begin to work.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

23. If I have trouble solving homework assignments I copy down the answer out of the book.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

24. When I run into a difficult homework assignment, I keep working at it until I think I've got it correct.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

25. I try to organize an approach to my work in my mind before I actually start the assignments.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

26. I work several examples of the same type of questions when studying so I can understand the material better.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

27. I try to memorize the material presented in the text or in class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

28. When I read something in the book that doesn't make sense, I skip it and hope that the teacher explains it.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

29. When I study for tests I use my past assignments, to help me study.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

30. When I read an assignment, I make sure I know that I understand before I begin work.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

31. When I study for tests, I review my past assignments.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

32. When studying, I try to combine different pieces of information from the course material in new ways.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

33. When I study I take note of the material I have or have not mastered.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

34. When I run into a difficult question on assignments I usually give up and go on to the next problem.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

35. I draw pictures or diagrams to help me understand things.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

36. It is easy for me to establish goals for learning in this class.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

37. I work practice questions to check my understanding of new concepts or rules.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

38. If I have trouble with a question on assignments, I'm more likely to guess at the answer than to look it up in the book to try to figure it out.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

39. I find reviewing previously studied material a good way to study for a test.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

Directions: Select the answer that best represents your view of you effort and performance in the each subject. Use the 5-point scale to indicate your answer on each subject.

Extremely low 1	Fairly low 2	About Average 3	Fairly high 4	Extremely high 5
--------------------	-----------------	--------------------	------------------	---------------------

40. How would you rate your effort in each subject.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

41. What is your performance in each subject.

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

Directions: Below are several goals that you might have for the future. Please indicate how important each goal is to you.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	---------------------

1. How important to you is graduating from high school?

1 2 3 4 5

2. How important to you is attending a junior/community college?

1 2 3 4 5

3. How important to you is getting into a four year college?

1 2 3 4 5

4. How important to you is getting a job after high school?

1 2 3 4 5

5. How important to you is making money?

1 2 3 4 5

6. How important to you is getting into the military?

1 2 3 4 5

7. How important to you is having a family?

1 2 3 4 5

8. How important to you is gaining social status?

1 2 3 4 5

9. How important to you is making a contribution to society?

1 2 3 4 5

Directions: Please indicate how important it is to do well in each of the subjects to reaching the future goal.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	---------------------

10. How important is doing well in each of these subjects to graduating from high school?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

11. How important is doing well in each of these subjects to attending a junior/community college?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

12. How important is doing well in each of these subjects to getting into a four year college?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

13. How important is doing well in each of these subjects to getting a job after high school?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

14. How important is doing well in each of these subjects to making money?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

15. How important is doing well in each of these subjects to getting into the military?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

16. How important is doing well in each subject to having a family?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

17. How important is doing well in each subject to gaining social status?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

18. How important is doing well in each subject to making a contribution to society?

English	1	2	3	4	5	Math	1	2	3	4	5
Science	1	2	3	4	5	History	1	2	3	4	5

Appendix B

Case Study 1

Table 1
Case Study 1
Future Goal Survey

Directions: Below are several goals that you might have for the future. Please indicate how important each goal is to you.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	---------------------

Future Goal Item	Response
1. How important to you is graduating from high school?	Very important
2. How important to you is attending a junior/community college	Very important
3. How important to you is getting into a four year college?	Very Important
4. How important to you is getting a job after high school?	Very important
5. How important to you is making money?	Very important
6. How important to you is getting into the military?	Not at all important
7. How important to you is having a family?	Very important
8. How important to you is gaining social status?	Very important
9. How important to you is making a contribution to society?	Important

Table 2
Case Study 1
Importance of Present Performance

Directions: Please indicate how important it is to do well in each of the subjects to reaching the future goal.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	------------------------

Importance of Performance (Instrumentality)	Response
--	-----------------

10. How important is doing well in each of these subjects to graduating from high school?
- | | |
|----------------|-----------------------|
| English | very important |
| Math | * |
| Science | * |
| History | * |
11. How important is doing well in each of these subjects to attending a junior/community college?
- | | |
|----------------|------------------|
| English | important |
| Math | * |
| Science | * |
| History | * |
12. How important is doing well in each of these subjects to getting into a four year college?
- | | |
|----------------|-----------------------|
| English | very important |
| Math | * |
| Science | * |
| History | * |
13. How important is doing well in each of these subjects to getting a job after high school?
- | | |
|----------------|-----------------------|
| English | very important |
| Math | * |
| Science | * |
| History | * |

continued: table 2, importance of performance

14. How important is doing well in each of these subjects to making money?

English	important
Math	*
Science	*
History	*

15. How important is doing well in each of these subjects to getting into the military?

English	important
Math	*
Science	*
History	*

16. How important is doing well in each subject to having a family?

English	very important
Math	*
Science	*
History	*

17. How important is doing well in each subject to gaining social status?

English	very important
Math	*
Science	*
History	*

18. How important is doing well in each subject to making a contribution to society?

English	of little importance
Math	*
Science	*
History	*

Table 3
Case Study 1
Perceptions of Ability

Directions: Students were asked to rate their perceptions of ability for each subject on each item. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale Item	Subject	Response
Perceptions of Ability		
.... I am certain I understand the material presented in class.	English	agree
	Math	*
	Science	*
	History	*
.... I am confident I have the ability to understand the ideas taught in this course.	English	strongly agree
	Math	*
	Science	*
	History	*
.... Compared with other students my skills are weak.	English	strongly disagree
	Math	*
	Science	*
	History	*
.... Relative to other students, I think I am better in this class.	English	no answer
	Math	*
	Science	*
	History	*
.... I have a good understanding of the material in this class.	English	would usually agree
	Math	*
	Science	*
	History	*
.... I think I am doing better than others in class.	English	disagree
	Math	*
	Science	*
	History	*

.... I am confident I can perform as well or better than others in class.

English
Math
Science
History

disagree
*
*
*

.... I am confident about my ability in this class.

English
Math
Science
History

agree
*
*
*

Table 4
Case Study 1
Valuing of Subject Content

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale	Item	Subject	Response
Intrinsic Valuing			
	I enjoy the challenge of this class.	English	agree
		Math	*
		Science	*
		History	*
	I find learning in this subject interesting.	English	usually agree
		Math	*
		Science	agree
		History	*
	I find working with this subject enjoyable.	English	usually agree
		Math	*
		Science	*
		History	*
	I think working this subject is personally satisfying.	English	agree
		Math	usually agree
		Science	*
		History	*
Extrinsic Valuing			
	Being knowledgeable about this subject will be of little value to me in the future (R)	English	strongly disagree
		Math	*
		Science	*
		History	*

continued: table 4, valuing

Being able to use this subject will
will help in the future.

English	agree
Math	*
Science	*
History	*

This subject has little to do with my future work. (R)

English	agree
Math	*
Science	*
History	*

I will need to know more about this subject
for my future work.

English	agree
Math	*
Science	*
History	*

Future Valuing

I plan on taking more classes in this subject.

English	agree
Math	*
Science	*
History	*

I am interested in learning more in this subject.

English	would usually agree
Math	*
Science	*
History	*

I plan on taking more classes in this subject even
if not required.

English	agree
Math	*
Science	*
History	*

Table 5
Case Study 1
Present Classroom Goals

Directions: Students were asked to rate their level of agreement that they do their classroom work on each item. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree. Each goal statement began with: "I do the work assigned in class because.....".

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Goal	Subject	Response
Learning Goals		
...I like to understand the material I study.	English	agree
	Math	*
	Science	*
	History	*
...I like to understand really complicated ideas.	English	usually agree
	Math	*
	Science	*
	History	*
...I like learning interesting things.	English	agree
	Math	*
	Science	*
	History	*
...I like to work hard on challenging tasks.	English	usually agree
	Math	*
	Science	*
	History	*
Performance Goals		
....I don't want to be the only one who cannot do the work well.	English	usually agree
	Math	*
	Science	*
	History	*

continued: table 5, present goals

....I don't want to be embarrassed about not being able to do the work.	English	agree
	Math	*
	Science	*
	History	*
....I dont want to look foolish or stupid to my friends, family or teachers.	English	usually agree
	Math	*
	Science	*
	History	*
....I don't want others to think I'm not smart.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	disagree
	Math	*
	Science	*
	History	*
....I can show people that I am smart.	English	agree
	Math	*
	Science	*
	History	*
....I want to look smart to my friends.	English	disagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	disagree
	Math	*
	Science	*
	History	*
Future Career		
....good grades are important for getting into my future career.	English	strongly agree
	Math	*
	Science	*
	History	*

continued: table 5, present goals

....doing well is necessary for getting the job I want after I graduate from high school.

English	strongly agree
Math	*
Science	*
History	*

....it will help me get into the career I want after I graduate from high school.

English	strongly agree
Math	*
Science	*
History	*

College Admission and Scholarships

....good grades are important for college admissions or scholarships.

English	strongly agree
Math	*
Science	*
History	*

....doing well is necessary for admission to college.

English	usually agree
Math	*
Science	*
History	*

....performing well is required for admission to college.

English	agree
Math	*
Science	*
History	*

Pleasing the Teacher

....I want teachers to think I am a good student.

English	disagree
Math	*
Science	*
History	*

....I don't want my teacher to be unhappy with what I've done.

English	disagree
Math	*
Science	*
History	*

....that is what school is all about.

English	strongly agree
Math	*
Science	*
History	*

continued: table 5, present goals

....that is what the teacher asked me to do.

English	disagree
Math	*
Science	*
History	*

.... that is what I'm supposed to do.

English	agree
Math	*
Science	*
History	*

Pleasing the Family

.... I want my family to think I am a good student.

English	agree
Math	*
Science	*
History	*

....I don't want to make my family unhappy.

English	usually agree
Math	*
Science	*
History	*

....that is what my family expects me to do.

English	usually agree
Math	*
Science	*
History	*

Rewards from Family

....I get money or other rewards from my family for earning good grades.

English	strongly disagree
Math	*
Science	*
History	*

....I get things that I want from my family for doing well.

English	strongly disagree
Math	*
Science	*
History	*

....if I do well my family gets me things that I like.

English	strongly disagree
Math	*
Science	*
History	*

Table 6
Case Study 1
Cognitive Engagement

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale Item	Subject	Response
Cognitive Engagement		
Deep strategy use		
When studying, I try to combine different pieces of information from course material in new ways.	English	disagree
	Math	*
	Science	*
	History	*
I draw pictures or diagrams to help me solve some problems.	English	disagree
	Math	*
	Science	*
	History	*
I work several examples of the same type of problem when studying.	English	disagree
	Math	*
	Science	*
	History	*
I work practice problems to check my understanding of new concepts or rules.	English	agree
	Math	*
	Science	*
	History	usually agree

continued: table 6, cognitive engagement

I examine example problems that have already been worked to help me figure out how to do similar problems on my own.

English	disagree
Math	*
Science	*
History	*

I classify problems into categories before I begin to work them.

English	strongly disagree
Math	*
Science	*
History	*

When I work a problem, I analyze it to see if there is more than one way to get the right answer.

English	usually agree
Math	*
Science	*
History	*

Shallow processing strategy use
I try to memorize the steps for solving problems presented in the text or in class.

English	usually agree
Math	*
Science	*
History	disagree

When I study for tests I review my class past assignments.

English	disagree
Math	*
Science	*
History	*

When I study for tests I review in my notes or steps in the book to help me memorize the steps involved.

English	usually agree
Math	*
Science	*
History	*

When I review for tests I use past assignments.

English	agree
Math	*
Science	*
History	*

continued: table 6, cognitive engagement

Persistence

If I have trouble understanding a problem,
I go over it again until I understand it.

English	usually agree
Math	*
Science	*
History	*

I try to complete homework assignments as
fast as possible without checking my
accuracy. (R)

English	strongly agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'm more likely to guess at the answer
than to look at examples in the book
to try to figure things out. (R)

English	agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'll try to get someone else to solve
it for me. (R)

English	usually agree
Math	*
Science	*
History	*

When I read something in the book that
doesn't make sense, I skip it and hope
that the teacher explains it.

English	usually agree
Math	*
Science	*
History	*

When I run into a difficult homework
problem, I keep working at it until
I think I've solved it.

English	usually agree
Math	*
Science	*
History	*

continued: table 6 cognitive engagement

When I run into a difficult homework problem, I usually give up and go on to the next problem.

English	disagree
Math	*
Science	*
History	*

Effort

How would you rate your effort in each class?

English	fairly high
Math	extremely high
Science	extremely high
History	fairly high

Performance

How would you rate your performance in each class?

English	did not answer
Math	*
Science	*
History	*

Self-regulation

Before a quiz or exam, I plan out how I will study the material.

English	usually agree
Math	*
Science	*
History	*

It is easy for me to establish goals for learning in this class

English	agree
Math	*
Science	*
History	*

When I study I take note of the material I have or have not mastered.

English	agree
Math	*
Science	*
History	*

I organize my study time well for this class.

English	disagree
Math	*
Science	*
History	*

continued: table 6, self-regulation

I have a clear idea of what I am
trying to accomplish in this class.

English	usually agree
Math	*
Science	*
History	*

When I read a problem, I make sure I
know what I am asked to do before I begin.

English	usually agree
Math	*
Science	*
History	*

When I finish working a problem I check
my answer to see if it is reasonable.

English	agree
Math	*
Science	*
History	*

I try to organize an approach in my mind
before I actually start problems.

English	usually agree
Math	*
Science	*
History	*

When I finished working on practice
problems I check my work for errors.

English	usually agree
Math	*
Science	*
History	*

Appendix C

Case Study 2

Table 1
Case Study 2
Future Goal Survey

Directions: Below are several goals that you might have for the future. Please indicate how important each goal is to you.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
---------------------------------	------------------------------	----------------------------	----------------	------------------------

<u>Future Goal Item</u>	<u>Response</u>
1. How important to you is graduating from high school?	Very important
2. How important to you is attending a junior/community college?	Somewhat important
3. How important to you is getting into a four year college?	Important
4. How important to you is getting a job after high school?	Very important
5. How important to you is making money?	Very important
6. How important to you is getting into the military?	Important
7. How important to you is having a family?	Important
8. How important to you is gaining social status?	Important
9. How important to you is making a contribution to society?	Somewhat important

Table 2
Case Study 2
Importance of Present Performance

Directions: Please indicate how important it is to do well in each of the subjects to reaching the future goal.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	---------------------

Importance of Performance (Instrumentality)	Subject	Response
--	----------------	-----------------

10. How important is doing well in each of these subjects to graduating from high school?

English	important
Math	*
Science	*
History	*

11. How important is doing well in each of these subjects to attending a junior/community college?

English	somewhat important
Math	*
Science	*
History	*

12. How important is doing well in each of these subjects to getting into a four year college?

English	very important
Math	*
Science	*
History	*

13. How important is doing well in each of these subjects to getting a job after high school?

English	important
Math	*
Science	*
History	*

continued: table 1, importance of performance to future goal

14. How important is doing well in each of these subjects to making money?

English	very important
Math	*
Science	*
History	*

15. How important is doing well in each of these subjects to getting into the military?

English	Somewhat important
Math	*
Science	*
History	*

16. How important is doing well in each subject to having a family?

English	important
Math	*
Science	*
History	*

17. How important is doing well in each subject to gaining social status?

English	not at all important
Math	*
Science	*
History	*

18. How important is doing well in each subject to making a contribution to society?

English	of little importance
Math	*
Science	*
History	*

Table 3
Case Study 2
Perceptions of Ability

Directions: Students were asked to rate their level of agreement for their perceptions of ability for each subject on each item. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Goal	Subject	Response
Perceptions of Ability		
.... I am certain I understand the material presented in class.	English	would usually agree
	Math	*
	Science	*
	History	*
.... I am confident I have the ability to understand the ideas taught in this course.	English	agree
	Math	*
	Science	*
	History	*
.... Compared with other students my skills are weak.	English	disagree
	Math	*
	Science	*
	History	*
.... Relative to other students, I think I am better in this class.	English	would usually agree
	Math	*
	Science	*
	History	*
.... I have a good understanding of the material in this class.	English	would usually agree
	Math	*
	Science	*
	History	*
.... I think I am doing better than others in class.	English	disagree
	Math	*
	Science	*
	History	*

.... I am confident I can perform as well or better than others in class.

English agree

Math *

Science *

History *

.... I am confident about my ability in this class.

English would usually agree

Math *

Science *

History *

Table 4
Case Study 2
Valuing of Subjects

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale	Item	Subject	Response
Intrinsic Valuing			
	I enjoy the challenge of this class.	English	disagree
		Math	*
		Science	strongly agree
		History	usually agree
	I find learning in this subject interesting.	English	usually agree
		Math	disagree
		Science	strongly agree
		History	usually agree
	I find working with this subject enjoyable.	English	strongly disagree
		Math	*
		Science	strongly agree
		History	strongly disagree
	I think working this subject is personally satisfying.	English	strongly disagree
		Math	*
		Science	usually agree
		History	strongly disagree
Extrinsic Valuing			
	Being knowledgeable about this subject will be of little value to me in the future (R)	English	strongly agree
		Math	*
		Science	*
		History	strongly disagree

continued: table 4, valuing

Being able to use this subject will
will help in the future.

English	strongly agree
Math	*
Science	agree
History	strongly disagree

This subject has little to do with my future work. (R)

English	usually agree
Math	strongly agree
Science	agree
History	strongly disagree

I will need to know more about this subject
for my future work.

English	usually agree
Math	strongly agree
Science	agree
History	strongly disagree

Future Valuing

I plan on taking more classes in this subject.

English	agree
Math	*
Science	*
History	*

I am interested in learning more in this subject.

English	disagree
Math	*
Science	*
History	*

I plan on taking more classes in this subject even
if not required.

English	agree
Math	*
Science	*
History	*

Table 5
Case Study 2
Present Goals for Classroom Work

Directions: Students were asked to rate their level of agreement that they do their classroom work. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree. Each goal statement began with: "I do the work assigned in class because.....".

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Goal	Subject	Response
Learning Goals		
...I like to understand the material I study.	English	strongly agree
	Math	*
	Science	*
	History	*
...I like to understand really complicated ideas.	English	agree
	Math	*
	Science	*
	History	*
...I like learning interesting things.	English	agree
	Math	*
	Science	*
	History	*
...I like to work hard on challenging tasks.	English	usually agree
	Math	*
	Science	*
	History	*
Performance Goals		
....I don't want to be the only one who cannot do the work well.	English	strongly agree
	Math	*
	Science	*
	History	*

continued: table 5, present classroom goals

....I don't want to be embarrassed about not being able to do the work.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I dont want to look foolish or stupid to my friends, family or teachers.	English	strongly agree
	Math	*
	Science	*
	History	*
....I don't want others to think I'm not smart.	English	usually sagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	agree
	Math	*
	Science	*
	History	*
....I can show people that I am smart.	English	agree
	Math	*
	Science	*
	History	*
....I want to look smart to my friends.	English	usually sagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	usually agree
	Math	*
	Science	*
	History	*
Future Career		
....good grades are important for getting into my future career.	English	usually agree
	Math	*
	Science	*
	History	*

continued: table 5, present classroom goals

....doing well is necessary for getting the job I want after I graduate from high school.

English	usually agree
Math	*
Science	*
History	*

....it will help me get into the career I want after I graduate from high school.

English	agree
Math	*
Science	*
History	*

College Admission and Scholarships

....good grades are important for college admissions or scholarships.

English	strongly agree
Math	*
Science	*
History	*

....doing well is necessary for admission to college.

English	agree
Math	*
Science	*
History	*

....performing well is required for admission to college.

English	agree
Math	*
Science	*
History	*

Pleasing the Teacher

....I want teachers to think I am a good student.

English	agree
Math	*
Science	*
History	*

....I don't want my teacher to be unhappy with what I've done.

English	agree
Math	*
Science	*
History	*

....that is what school is all about.

English	usually agree
Math	*
Science	*
History	*

continued: table 5, present classroom goals

....that is what the teacher asked me to do.

English	strongly disagree
Math	*
Science	*
History	*

.... that is what I'm supposed to do.

English	strongly agree
Math	*
Science	*
History	*

Pleasing the Family

.... I want my family to think I am a good student.

English	strongly disagree
Math	*
Science	*
History	*

....I don't want to make my family unhappy.

English	agree
Math	*
Science	*
History	*

....that is what my family expects me to do.

English	strongly agree
Math	*
Science	*
History	*

Rewards from Family

....I get money or other rewards from my family for earning good grades.

English	usually agree
Math	*
Science	*
History	*

....I get things that I want from my family for doing well.

English	disagree
Math	*
Science	*
History	*

....if I do well my family gets me things that I like.

English	disagree
Math	*
Science	*
History	*

Table 6
Case Study 2
Cognitive Engagement

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale Item	Subject	Response
Cognitive Engagement		
Deep strategy use		
When studying, I try to combine different pieces of information from course material in new ways.	English	would usually agree
	Math	*
	Science	*
	History	*
I draw pictures or diagrams to help me solve some problems.	English	strongly disagree
	Math	*
	Science	*
	History	*
I work several examples of the same type of problem when studying.	English	would usually agree
	Math	*
	Science	*
	History	*
I work practice problems to check my understanding of new concepts or rules.	English	would usually agree
	Math	*
	Science	*
	History	*

continued: table 6, cognitive engagement

I examine example problems that have already been worked to help me figure out how to do similar problems on my own.

English	would usually agree
Math	*
Science	*
History	*

before I begin to work them.

English	disagree
Math	*
Science	*
History	*

When I work a problem, I analyze it to see if there is more than one way to get the right answer.

English	strongly dis agree
Math	*
Science	*
History	*

Shallow processing strategy use

I try to memorize the steps for solving problems presented in the text or in class.

English	agree
Math	*
Science	*
History	*

When I study for tests I review my class past assignments.

English	disagree
Math	*
Science	*
History	*

When I study for tests I review in my notes or steps in the book to help me memorize the steps involved.

English	would usually agree
Math	*
Science	*
History	*

When I review for tests I use past assignments.

English	would usually agree
Math	*
Science	*
History	*

continued: table 6, cognitive engagement

Persistence

If I have trouble understanding a problem,
I go over it again until I understand it.

English	agree
Math	*
Science	*
History	*

I try to complete homework assignments as
fast as possible without checking my
accuracy. (R)

English	would usually agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'm more likely to guess at the answer
than to look at examples in the book
to try to figure things out. (R)

English	agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'll try to get someone else to solve
it for me. (R)

English	would usually agree
Math	*
Science	*
History	*

When I read something in the book that
doesn't make sense, I skip it and hope
that the teacher explains it.

English	would usually agree
Math	*
Science	*
History	*

When I run into a difficult homework
problem, I keep working at it until
I think I've solved it.

English	would usually agree
Math	*
Science	*
History	*

continued: table 6, self-regulation

When I run into a difficult homework problem, I usually give up and go on to the next problem.

English	agree
Math	*
Science	*
History	*

Effort

How would you rate your effort in each class?

English	about average
Math	fairly low
Science	extremely high
History	about average

Performance

What is your performance in each class?

English	about average
Math	*
Science	fairly high
History	about average

Self-regulation

Before a quiz or exam, I plan out how I will study the material

English	usually agree
Math	*
Science	*
History	*

Before a quiz or exam, I plan out how I will study the material

English	would usually agree
Math	*
Science	*
History	*

It is easy for me to establish goals for learning in this class

English	disagree
Math	*
Science	*
History	*

When I study I take note of the material I have or have not mastered

English	usually agree
Math	*
Science	*
History	*

I organize my study time well for this class.

English	disagree
Math	*
Science	*
History	*

continued: table 6, self-regulation

I have a clear idea of what I am trying to accomplish in this class.	English	disagree
	Math	*
	Science	*
	History	*
When I read a problem, I make sure I know what I am asked to do before I begin.	English	strongly dis agree
	Math	*
	Science	*
	History	*
When I finish working a problem I check my answer to see if it is reasonable.	English	usually agree
	Math	*
	Science	*
	History	*
I try to organize an approach in my mind before I actually start problems.	English	disagree
	Math	*
	Science	*
	History	*
When I finished working on practice problems I check my work for errors.	English	would usually agree
	Math	*
	Science	*
	History	*

Appendix D

Case Study 3

Table 1
Case Study 3
Future Goal Survey

Directions: Below are several goals that you might have for the future. Please indicate how important each goal is to you.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	---------------------

Future Goal Item	Response
1. How important to you is graduating from high school?	Very important
2. How important to you is attending a junior/community college	Important
3. How important to you is getting into a four year college?	Somewhat important
4. How important to you is getting a job after high school?	Very important
5. How important to you is making money?	Very important
6. How important to you is getting into the military?	Of little importance
7. How important to you is having a family?	Very important
8. How important to you is gaining social status?	Of little importance
9. How important to you is making a contribution to society?	Important

Table 2
Case Study 3
Importance of Present Performance

Directions: Please indicate how important it is to do well in each of the subjects to reaching the future goal.

not at all important 1	of little importance 2	somewhat important 3	important 4	very important 5
------------------------------	------------------------------	----------------------------	----------------	------------------------

Importance of Performance (Instrumentality)	Response
--	-----------------

10. How important is doing well in each of these subjects to graduating from high school?

English	very important
Math	*
Science	*
History	*

11. How important is doing well in each of these subjects to attending a junior/community college?

English	important
Math	*
Science	*
History	*

12. How important is doing well in each of these subjects to getting into a four year college?

English	somewhat important
Math	*
Science	*
History	*

13. How important is doing well in each of these subjects to getting a job after high school?

English	very important
Math	*
Science	*
History	Not at all important

continued: table 2, importance of performance

14. How important is doing well in each of these subjects to making money?

English	important
Math	*
Science	*
History	of little importance

15. How important is doing well in each of these subjects to getting into the military?

English	of little importance
Math	*
Science	*
History	*

16. How important is doing well in each subject to having a family?

English	important
Math	*
Science	*
History	of little importance

17. How important is doing well in each subject to gaining social status?

English	not all important
Math	*
Science	*
History	*

18. How important is doing well in each subject to making a contribution to society?

English	of little importance
Math	*
Science	*
History	*

Table 3
Case Study 3
Perceptions of Ability

Directions: Students were asked to rate their level of agreement for their perceptions of ability for each subject on each item. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

<u>Item</u>	<u>Subject</u>	<u>Response</u>
.... I am certain I understand the material presented in class.	English	usually agree
	Math	strongly disagree
	Science	usually agree
	History	*
.... I am confident I have the ability to understand the ideas taught in this course.	English	usually agree
	Math	disagree
	Science	agree
	History	usually agree
.... Compared with other students my skills are weak.	English	disagree
	Math	agree
	Science	disagree
	History	usually agree
.... Relative to other students, I think I am better in this class.	English	usually agree
	Math	*
	Science	*
	History	*
.... I have a good understanding of the material in this class.	English	usually agree
	Math	*
	Science	*
	History	*
.... I think I am doing better than others in class.	English	usually agree
	Math	*
	Science	*
	History	*

.... I am confident I can perform as well or better than others in class.

English
Math
Science
History

usually agree
*
*
*

.... I am confident about my ability in this class.

English
Math
Science
History

usually agree
*
*
*

Table 4
Case Study 3
Valuing of Subjects

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale Item	Subject	Response
Intrinsic Valuing		
I enjoy the challenge of this class.	English	usually agree
	Math	disagree
	Science	usually agree
	History	disagree
I find learning in this subject interesting.	English	usually agree
	Math	disagree
	Science	agree
	History	disagree
I find working with this subject enjoyable.	English	usually agree
	Math	disagree
	Science	usually agree
	History	disagree
I think working this subject is personally satisfying.	English	usually agree
	Math	disagree
	Science	usually agree
	History	disagree
Extrinsic Valuing		
Being knowledgeable about this subject will be of little value to me in the future (R)	English	agree
	Math	*
	Science	*
	History	*

continued: table 4, valuing

Being able to use this subject will
will help in the future.

English	agree
Math	*
Science	*
History	*

This subject has little to do with my future work. (R)

English	usually agree
Math	*
Science	*
History	*

I will need to know more about this subject
for my future work.

English	usually agree
Math	*
Science	*
History	*

Future Valuing

I plan on taking more classes in this subject.

English	usually agree
Math	strongly disagree
Science	usually agree
History	strongly disagree

I am interested in learning more in this subject.

English	usually agree
Math	disagree
Science	usually agree
History	disagree

I plan on taking more classes in this subject even
if not required.

English	usually agree
Math	disagree
Science	usually agree
History	disagree

Table 5
Case Study 3
Goals for Present Classroom Work

Directions: Students were asked to rate their level of agreement that they do their classroom work. The survey used a 5 point likert scale: 1 - strongly disagree; 2 - disagree; 3 - would usually agree; 4 - agree; 5 - strongly agree. Each goal statement began with: "I do the work assigned in class because.....".

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Goal	Subject	Response
Learning Goals		
...I like to understand the material I study.	English	disagree
	Math	*
	Science	*
	History	*
...I like to understand really complicated ideas.	English	strongly agree
	Math	*
	Science	*
	History	*
...I like learning interesting things.	English	strongly disagree
	Math	*
	Science	*
	History	*
...I like to work hard on challenging tasks.	English	disagree
	Math	*
	Science	*
	History	*
Performance Goals		
...I don't want to be the only one who cannot do the work well.	English	disagree
	Math	*
	Science	*
	History	*

continued: table 5, present goals

....I don't want to be embarrassed about not being able to do the work.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I dont want to look foolish or stupid to my friends, family or teachers.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I don't want others to think I'm not smart.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I can show people that I am smart.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I want to look smart to my friends.	English	strongly disagree
	Math	*
	Science	*
	History	*
....I like to do better than other students.	English	strongly disagree
	Math	*
	Science	*
	History	*
Future Career		
....good grades are important for getting into my future career.	English	agree
	Math	*
	Science	*
	History	*

continued: table 5, present goals

...doing well is necessary for getting the job I want after I graduate from high school.

English	agree
Math	*
Science	*
History	*

....it will help me get into the career I want after I graduate from high school.

English	agree
Math	*
Science	*
History	*

College Admission and Scholarships

....good grades are important for college admissions or scholarships.

English	usually agree
Math	*
Science	*
History	*

....doing well is necessary for admission to college.

English	usually agree
Math	*
Science	*
History	*

....performing well is required for admission to college.

English	usually agree
Math	*
Science	*
History	*

Pleasing the Teacher

....I want teachers to think I am a good student.

English	strongly disagree
Math	*
Science	*
History	*

....I don't want my teacher to be unhappy with what I've done.

English	strongly disagree
Math	*
Science	*
History	*

....that is what school is all about.

English	disagree
Math	*
Science	*
History	*

continued: table 5, present goals

....that is what the teacher asked me to do.

English	strongly disagree
Math	*
Science	*
History	*

.... that is what I'm supposed to do.

English	usually agree
Math	*
Science	*
History	*

Pleasing the Family

.... I want my family to think I am a good student.

English	strongly disagree
Math	*
Science	*
History	*

....I don't want to make my family unhappy.

English	dis agree
Math	*
Science	*
History	*

....that is what my family expects me to do.

English	strongly disagree
Math	*
Science	*
History	*

Rewards from Family

....I get money or other rewards from my family for earning good grades.

English	disagree
Math	agree
Science	disagree
History	usually agree

....I get things that I want from my family for doing well.

English	agree
Math	*
Science	*
History	*

....if I do well my family gets me things that I like.

English	agree
Math	*
Science	*
History	*

Table 6
Case Study 3
Cognitive Engagement

Directions: Students were asked about how they view their school subjects. They were asked to read each question and indicate how much they agreed that the statement was true of them. They used the 5-point scale below to indicate their response to each subject.

Strongly Disagree 1	Disagree 2	Would Usually Agree 3	Agree 4	Strongly Agree 5
---------------------------	---------------	-----------------------------	------------	------------------------

Scale Item	Subject	Response
Cognitive Engagement		
Deep strategy use		
When studying, I try to combine different pieces of information from course material in new ways.	English	usually agree
	Math	*
	Science	*
	History	*
I draw pictures or diagrams to help me solve some problems.	English	usually agree
	Math	*
	Science	*
	History	*
I work several examples of the same type of problem when studying.	English	usually agree
	Math	*
	Science	*
	History	*
I work practice problems to check my understanding of new concepts or rules.	English	usually agree
	Math	*
	Science	*
	History	*

continued: table 6, cognitive engagement

I examine example problems that have already been worked to help me figure out how to do similar problems on my own.

English	usually agree
Math	*
Science	*
History	*

I classify problems into categories before I begin to work them.

English	disagree
Math	*
Science	*
History	*

When I work a problem, I analyze it to see if there is more than one way to get the right answer.

English	usually agree
Math	*
Science	*
History	*

Shallow processing strategy use
I try to memorize the steps for solving problems presented in the text or in class.

English	usually agree
Math	*
Science	*
History	*

When I study for tests I review my class past assignments.

English	usually agree
Math	*
Science	*
History	*

When I study for tests I review in my notes or steps in the book to help me memorize the steps involved.

English	usually agree
Math	*
Science	*
History	*

When I review for tests I use past assignments.

English	usually agree
Math	*
Science	*
History	*

continued: table 6, cognitive engagement

Persistence

If I have trouble understanding a problem,
I go over it again until I understand it.

English	usually agree
Math	disagree
Science	usually agree
History	*

I try to complete homework assignments as
fast as possible without checking my
accuracy. (R)

English	usually agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'm more likely to guess at the answer
than to look at examples in the book
to try to figure things out. (R)

English	usually agree
Math	*
Science	*
History	*

If I have trouble solving a problem,
I'll try to get someone else to solve
it for me. (R)

English	disagree
Math	*
Science	*
History	*

When I read something in the book that
doesn't make sense, I skip it and hope
that the teacher explains it.

English	usually agree
Math	*
Science	*
History	*

When I run into a difficult homework
problem, I keep working at it until
I think I've solved it.

English	usually agree
Math	disagree
Science	usually agree
History	disagree

continued: table 6, self-regulation

When I run into a difficult homework problem, I usually give up and go on to the next problem.

English	usually agree
Math	*
Science	*
History	*

Effort

How would you rate your effort in each class?

English	about average
Math	*
Science	*
History	*

Performance

How would you rate your performance in each class?

English	about average
Math	fairly low
Science	about average
History	fairly low

Self-regulation

Before a quiz or exam, I plan out how I will study the material.

English	usually agree
Math	*
Science	*
History	*

It is easy for me to establish goals for learning in this class

English	agree
Math	disagree
Science	strongly agree
History	disagree

continued: table 6, self-regulation

When I study I take note of the material I have or have not mastered.

English	usually agree
Math	*
Science	*
History	*

I organize my study time well for this class.

English	usually agree
Math	disagree
Science	usually agree
History	disagree

continued: table 6, self-regulation

I have a clear idea of what I am trying to accomplish in this class.

English	usually agree
Math	disagree
Science	would usually agree
History	disagree

When I read a problem, I make sure I know what I am asked to do before I begin.

English	usually agree
Math	*
Science	*
History	*

When I finish working a problem I check my answer to see if it is reasonable.

English	usually agree
Math	*
Science	*
History	*

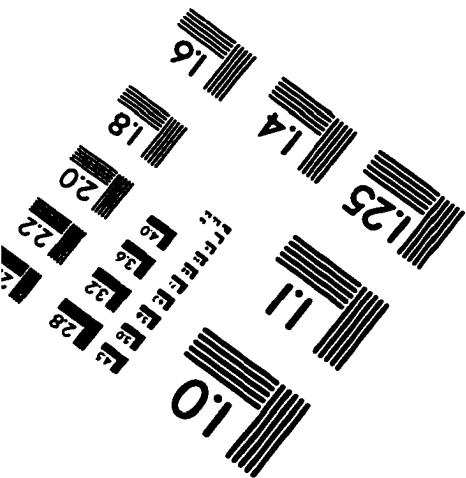
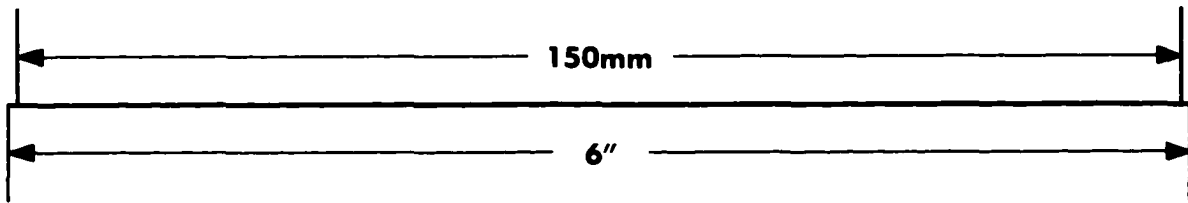
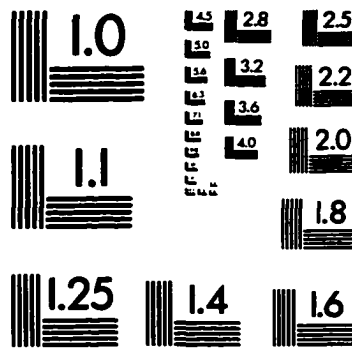
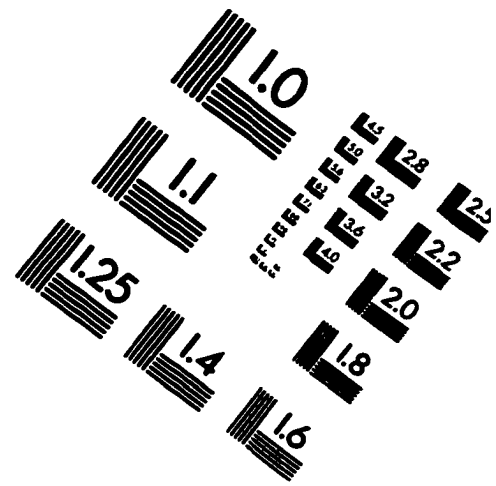
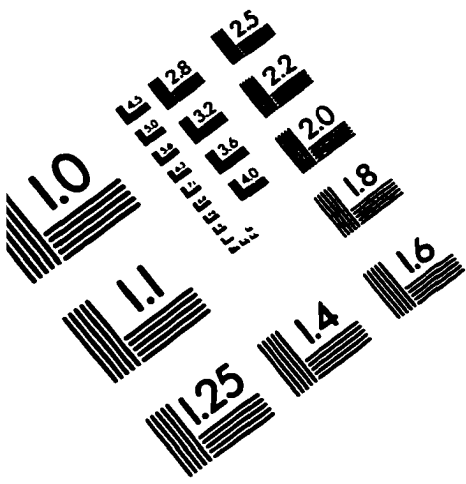
I try to organize an approach in my mind before I actually start problems.

English	usually agree
Math	*
Science	*
History	*

When I finished working on practice problems I check my work for errors.

English	disagree
Math	*
Science	*
History	*

IMAGE EVALUATION TEST TARGET (QA-3)



APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

© 1993, Applied Image, Inc., All Rights Reserved

