



A descriptive case study of learning abilities of college students who experienced childhood maltreatment  
by Christopher Frank Mulrine

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education  
Montana State University  
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**Abstract:**

The purpose of this study was to determine how the effects of childhood maltreatment carry over into adult life and impact the learning abilities of college students.

The data were collected from two sources, a demographic survey and a Learning and Study Strategies Inventory (LASSI). The sample consisted of 198 participants enrolled in the 1993 summer class sessions at Montana State University. Childhood maltreatment was defined for this study to include sexual, psychological, and physical abuse or a combination of each. Frequency counts and percentages were used to describe the differences existing in the demographic variables. A one-sample t-test was used to determine if a significant difference existed between the normed LASSI mean scores and the total group, maltreated, and non-maltreated group mean scores. The t-test for independent samples was then used to determine if a significant difference existed in the demographic variables and the LASSI subscale scores between the total group, maltreated, and non-maltreated groups. Three separate discriminant analyses were conducted to determine if maltreated and non-maltreated participants differed in their interaction on the demographic variables, on each of the ten subscales on the LASSI, and on the combined variables of the demographics and the LASSI.

Of the 198 respondents, 14 males and 36 females reported being maltreated in childhood. The one sample t-tests revealed the total group of participants scored better than the normed group on half of the LASSI subscales. The independent samples t-test revealed significant differences in 9 of the 19 demographic variables and no significant differences on the LASSI variables between the maltreated and non-maltreated groups. The discriminant analyses resulted in one discriminant function, named Maltreatment Realities, that produced recognizable predictive variables that were 80.8% accurate and explained prediction above chance level of maltreated and non-maltreated groups. The 5 demographic variables used to name this function were counseling, perfectionistic, behavior disorder, psychological health, and socio-economic status.

This study has shown that the effects of childhood maltreatment carry over into the adult educational environment through persistence of poor self-concept and psychological health, but the negative effects of the maltreatment on intellectual development appear to have been overcome for many students successfully completing college.

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OF COLLEGE STUDENTS WHO EXPERIENCED  
CHILDHOOD MALTREATMENT

by

Christopher Frank Mulrine

A thesis submitted in partial fulfillment  
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of

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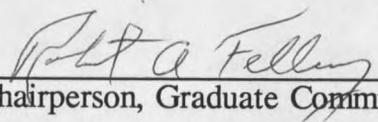
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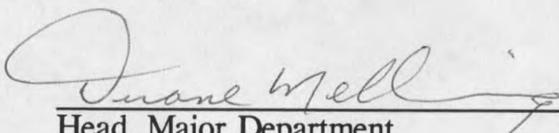
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## ABSTRACT

The purpose of this study was to determine how the effects of childhood maltreatment carry over into adult life and impact the learning abilities of college students.

The data were collected from two sources, a demographic survey and a Learning and Study Strategies Inventory (LASSI). The sample consisted of 198 participants enrolled in the 1993 summer class sessions at Montana State University. Childhood maltreatment was defined for this study to include sexual, psychological, and physical abuse or a combination of each. Frequency counts and percentages were used to describe the differences existing in the demographic variables. A one-sample  $t$ -test was used to determine if a significant difference existed between the normed LASSI mean scores and the total group, maltreated, and non-maltreated group mean scores. The  $t$ -test for independent samples was then used to determine if a significant difference existed in the demographic variables and the LASSI subscale scores between the total group, maltreated, and non-maltreated groups. Three separate discriminant analyses were conducted to determine if maltreated and non-maltreated participants differed in their interaction on the demographic variables, on each of the ten subscales on the LASSI, and on the combined variables of the demographics and the LASSI.

Of the 198 respondents, 14 males and 36 females reported being maltreated in childhood. The one sample  $t$ -tests revealed the total group of participants scored better than the normed group on half of the LASSI subscales. The independent samples  $t$ -test revealed significant differences in 9 of the 19 demographic variables and no significant differences on the LASSI variables between the maltreated and non-maltreated groups. The discriminant analyses resulted in one discriminant function, named Maltreatment Realities, that produced recognizable predictive variables that were 80.8% accurate and explained prediction above chance level of maltreated and non-maltreated groups. The 5 demographic variables used to name this function were counseling, perfectionistic, behavior disorder, psychological health, and socio-economic status.

This study has shown that the effects of childhood maltreatment carry over into the adult educational environment through persistence of poor self-concept and psychological health, but the negative effects of the maltreatment on intellectual development appear to have been overcome for many students successfully completing college.

## CHAPTER 1

### INTRODUCTION

The effects of childhood maltreatment are well documented as having profound adverse effects on children's cognitive, psychosocial, and academic development (Barahal, Waterman, & Martin, 1981; Cryan, 1985; Einbender & Friedreich, 1989; Fatout, 1990; Halpern, 1987). The majority of this research, however, has concentrated on assessing the impact of the maltreatment with children from infancy through high school (Cryan, 1985; Culp, Heide, & Taylor-Richardson, 1987; Ivey & Ivey, 1990; Oates & Peacock, 1984).

Childhood maltreatment also impacts an adult's cognitive and psychosocial functioning. The effects of childhood maltreatment do not cease once an individual reaches adulthood. The long-term effects of childhood maltreatment, for example, sexual abuse, evolve and vary with the individual's awareness and with the experiences, demands, and contexts of his or her life (Alexander, 1992). In a recent paper presented at the annual meeting of the Midwestern Psychological Association, it was found that people who have experienced traumatic life events often have resulting psychological symptoms associated with these events.

The long-term effects associated with childhood maltreatment, especially in the case of sexual abuse, can cause unique negative effects in the domains of self

and social functioning, specifically in jeopardizing self-definition and integration, self-regulatory processes, and a sense of security and trust in relationships (Cole & Putnam, 1992; Wyatt, 1992). If childhood maltreatment has these resulting psychological symptoms, how might these symptoms affect the cognitive abilities of the college-aged learner?

### Background of the Problem

Studies show that children demonstrate the negative impacts of childhood maltreatment in the educational setting through aggressive or withdrawn behaviors, defiant acts, poor academic performance, chronic absences, and through assertive and manipulative behaviors (Montana School Guidelines, 1990). These students may be diagnosed as having a learning difficulty or a behavior disorder. The research findings show that "abused children are placed more in classes for the emotionally disturbed, educable mentally retarded and learning disabled classes" (Heilig, 1990, p. 43) than their non-abused cohorts. The research clearly demonstrates the problems associated with maltreated younger children in the educational setting, but currently there are no research studies on the specific educational problems faced by adults maltreated as children in the educational setting.

The specific barriers affecting adult learning are an inadequate sense of self and negative aspirations (Fellenz, 1992), which are symptoms of childhood maltreatment that can be associated with psychosocial development. The research

also strongly suggests that there is a positive relationship between childhood maltreatment and the negative repercussions it has on academic achievement (Heilig, 1990). These repercussions can be directly linked to problems affecting a person's cognitive development. If childhood maltreatment affects cognitive development and if specific barriers to learning are caused by childhood maltreatment effects on psychosocial development, how might these be impacting an adult's learning abilities in the post-secondary educational setting?

#### Problem Statement

Since many adults maltreated as children are enrolled in college and since learning does not cease once a person graduates from high school, information is needed on the effects of childhood maltreatment on college students' cognitive abilities. The effects of childhood maltreatment may still be impacting the student in the college setting because childhood maltreatment's effects carry over into the adult classroom environment. Very few studies deal with this venue. There is a need to study how childhood maltreatment affects the learning abilities of college students. This investigation focused on the overlapping effects of childhood maltreatment (sexual, physical, and/or psychological abuse), the normal developmental processes involved with cognitive and psychosocial development, and how the long-term effects of this maltreatment might have impacted the learning and study strategies of college students.

### Purpose of the Study

The purpose of this study was to investigate the relationship between the long-term effects of childhood maltreatment and learning and study strategies of a group of college students. Frequency counts and percentages were used to describe the demographic data collected for the study. Statistical procedures were used to explore for relationships existing between the demographic data, a learning and study strategy inventory (LASSI), and both of these together with self-identified groups of maltreated and non-maltreated college students.

### Questions To Be Answered

This study was a descriptive case study. Descriptive research studies involve "collecting data in order to test hypothesis and to answer questions concerning the current status of the subjects" (Gay, 1987, p. 189). Case studies are a bounded system which is "an examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group" (Merriam, 1988, p. 10). The group of maltreated and non-maltreated respondents were the social group that this case study analyzed.

### Research Questions

1. Is there a difference between the demographic variables of age, gender, marriage, ethnicity, year in college, grade point average, geographic area, socio-economic status, psychological counseling, diagnosis of learning disabled, and

behavior disorder, if as a student they would classify themselves as being organized, perfectionistic, persistent, motivated, low achiever, and on ratings of self-concept, psychological health, and grades with the maltreated and non-maltreated participants? This research question was answered by using frequency counts.

2. The following research question was answered by using a one sample  $t$ -test: Is there a significant difference between the total, maltreated, and non-maltreated groups subscale mean scores measured by the LASSI inventory and the normed group subscale mean scores measured by the LASSI inventory?

3. The following research question was answered by using a  $t$ -test for independent samples: Is there a significant difference between the maltreated and non-maltreated groups' subscale mean scores measured by the LASSI inventory.

4. The following research question was answered by using discriminate analysis: Can the group of the maltreated and the non-maltreated participants be discriminated based on the demographic variables and each of the 10 LASSI subscale scores?

### Definitions of Terms

The following definitions applied to these terms used throughout the study and represent the definitions obtained from the literature.

Sexual Abuse: Sexual abuse is defined as contacts or interactions between a child (male or female under the age of 18) and an adult (more than 5 years older than the victim) when the child is being used for the sexual stimulation of the

perpetrator or another person. A perpetrator is defined as a person who is in a position of power or control over the victim such as a family member, relative, friend, stranger, teacher, minister, baby sitter. Sexual abuse means sexual assault, sexual intercourse without consent, indecent exposure, deviate sexual conduct, or incest (Montana School Guidelines, 1990). Included in this definition is fondling, masturbation, oral sex, or the use of the child for pornography (Authier, 1986).

Physical Abuse: Physical abuse includes any non-accidental physical injury caused by the child's caretaker. By definition the injury is not an accident. Physical abuse may result from over-discipline or from punishment. It may include burning, beating, branding, punching, bruises, or broken and fractured bones (Montana School Guidelines, 1990).

Psychological Abuse: Psychological abuse as defined for this study is both emotional abuse and neglect. Psychological abuse is behavior that is sufficiently threatening to limit the capacity to work or to enjoy good physical or mental health (Patrick-Hoffman, 1982). Included in this definition is verbal abuse, rejection, ignoring, bizarre acts of nonphysical torment, or constant lack of concern by the caretaker for the child's welfare (Authier, 1986). Neglect involves constant hunger, poor hygiene, chronically being dirty and unbathed, and having unattended to physical problems or medical needs. Emotional abuse involves being blamed, belittled, or rejected as a child; or constantly being treated unequally to other siblings (Montana School Guidelines, 1990).

Cognitive Abilities: A person's general aptitude in many areas of intellectual functioning for formal school learning.

Cognitive Development: Cognitive development is the development of a person's intellectual or cognitive abilities (Slavin, 1992) that allow for higher order thinking skills which guide one's actions as adults.

Cognitive Learning Theory: This learning theory is "concerned almost exclusively with human learning, particularly with the unobservable mental processes individuals use to learn and remember new information or skills" (Slavin, 1992, p. 99).

Learning Strategies: According to Jarvis, learning styles are the cognitive styles that have characteristic modes of functioning revealing a person's perceptual and intellectual activities in highly consistent and pervasive ways. Learning strategies are the techniques or skills that an individual elects to use in order to accomplish a specific learning task (Fellenz & Conti, 1989).

Learning and Study Strategies Inventory (LASSI): An "assessment tool designed to measure students' use of learning and study strategies and methods. The focus is on both covert and overt thoughts and behaviors that relate to successful learning and that can be altered through educational interventions" (Weinstein, 1987, p. 2).

Learning Disability: "A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which

may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations" (Slavin, 1992, p. 409).

Behavior Disorder: The definition of behavior disorder specifies marked and persistent characteristics having to do with (a) school learning problems, (b) unsatisfactory interpersonal relationships, (c) inappropriate behavior and feelings, (d) pervasive unhappiness or depression, and (e) physical symptoms or fears associated with school or personal problems (Kaufman, 1989).

### Limitations

A limitation inherent in this study is the insightfulness and honesty of the participants. Human error of respondents is always a factor in self-reported data. Related to this study, there may have been varying interpretations for the definitions on the demographic categories requested from the respondents. As in all studies, there may also have been some responses that were not credible.

## CHAPTER 2

### REVIEW OF LITERATURE

#### Introduction

It is estimated that "nearly a fifth of all families in the United States experience a form of family violence" (Miller, 1989, p. 413), and between 1.4 million and 1.9 million children in the United States are intentionally injured by their parents (Fatout, 1990). "In fact, children are affected by all forms of violence in the family, whether they are directly involved in sexual or physical abuse or are witnesses to violence inflicted on others, as in wife beating and rape, abuse of pets, and violence against personal property" (Miller, 1989, p. 413).

The National Center on Child Abuse and Neglect estimates that at least 1,584,700 children are harmed by child maltreatment annually. In 1988, the Montana Department of Family Services received approximately 8,800 referrals for child abuse or neglect. Of these referrals 4,600 were substantiated including 600 cases of sexual abuse, 1,700 cases of physical and emotional abuse, and 2,400 cases of neglect. No geographic setting is free from child abuse and neglect. Based on a 1986 National Study of the Incidence and Severity of Child Abuse and Neglect, the

rates are similar for urban, suburban and rural communities (Montana School Guidelines, 1990).

Educators are closely involved in the process of student learning. Educational psychology, the study of learners and teaching, has as its principle focus "the process by which information, skills, values, and attitudes are transmitted from teachers to students in the classroom, and on applications of principles of psychology to the practice of instruction" (Slavin, 1992, p. 3). Educational psychology offers instructional methods and strategies for educating special needs students, who are students with physical, emotional, or biological handicaps. Each of these handicapping conditions have their own specific instructional specializations that augment the learning styles and study strategies utilized by students for the absorption and retention of subject matter. It is through this educational approach, using both the principles of psychology and specific instructional methodology, the effects of childhood maltreatment in the classroom can be addressed.

Childhood maltreatment may cause an overt or covert physical, biological or emotional handicap which will effect learning. The effects of childhood maltreatment as discussed by Roscoe (1985) are:

- (1) intellectually disadvantaged as measured by intelligence test scores, academic performance, and readiness to learn.
- (2) emotionally immature while possessing poor self-concepts and reduced attachment to others.
- (3) socially unable to interact in a positive manner with peers and teaching staff. (p. 392)

Studies have shown that there are "higher percentages of special education and institutional placements for abused children than for non-abused children. The evidence also points to higher frequencies of academic difficulties and behavior problems among these children" (Heilig, 1987 p. 90).

These students may appear in the educational environment to be experiencing learning problems caused by a learning disability or a behavior disorder. A learning disability can be defined as "a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations" (Slavin, 1992, p. 409). A behavior disorder can be defined as persistent characteristics having to do with school learning problems, unsatisfactory interpersonal relationships, inappropriate behavior and feelings, pervasive unhappiness or depression, and physical symptoms or fears associated with school or personal problems (Kaufman, 1989). The parallels existing between the definitions for a learning disability and a behavior disorder are closely related to the symptoms associated with childhood maltreatment.

In an effort to better understand this relationship a more detailed explanation of childhood maltreatment was defined. This study then assessed participants' sense of self and competence in the intellectual and educational domains through the collection of demographic data and through a learning and

study strategy inventory. This data was then analyzed and a descriptive report of the findings was compiled.

### Childhood Maltreatment

John Briere (Briere & Runtz, 1990, p. 360) in his study on university women's historical reports of childhood maltreatment states that there are

substantial, unique relationships between retrospective reports of parental psychological abuse and subsequent low self-esteem, controlling for all other forms of abuse and types of symptoms, followed by a smaller but significantly unique relationship between sexual abuse and dysfunctional sexual behavior, and between physical abuse and later anger/aggression.

Childhood maltreatment can be divided into the three major categories of sexual, physical, and psychological abuse. Each of these abuses has their own specific symptoms associated with them and each may contribute to inadequate academic abilities in the educational environment. These inadequate academic abilities can be observed at all educational levels.

### Effects of Psychological Abuse

"Psychological attacks and criticism by one's parents appear to be specifically associated with subsequent low self-evaluation, probably as a result of the child's internalization of parental statements as a basis for self-perception" (Briere, 1992, p. 361). The general symptoms for both adults and children who were psychologically abused include stress disorders and psychosomatic complaints,

sadness and depression, low self-esteem, uncertainty of own ego needs, a high risk for alcohol and drug dependency, loneliness, and fear (Boyd & Klingbiel, 1990).

Psychological abuse includes the negative ramifications associated with emotional abuse and physical neglect. Emotional abuse involves blaming, belittling, or rejecting a child, constantly treating siblings unequally or constant lack of concern by the caretaker for the child's welfare. Physical neglect involves inattention to a child's basic needs such as food, clothing, shelter, medical care, education, and supervision (Montana School Guidelines, 1990). There are certain behavioral characteristics associated with psychological abuse. These behaviors may be demonstrated in the following ways: conduct disorders, habit disorders, sleep disorders, psychoneurotic reactions including hysteria, lags in emotional and intellectual development, and suicide (Montana School Guidelines, 1990).

#### Effects of Sexual Abuse

The empirical study of adult survivors of childhood sexual victimization is a newly emerging field" (Beutler & Hill, 1992, p. 210). This literature indicates that "early sexual abuse evokes profound and often lasting effects" (p. 204). The research findings show that one-sixth of men and one-third of women in our culture have experienced sexual contact with someone substantially older by their mid-teens (Briere, 1992).

"Treatment issues for the sexually abused person address the 'damaged goods' syndrome, guilt, fear, depression, low self-esteem, poor social skills,

repressed anger and hostility, impaired ability to trust, blurred boundaries and role confusion, pseudomaturity coupled with failure to accomplish developmental tasks, and self-mastery and control" (Sgroi, Blick, & Porter, 1990, p. 109).

The general symptoms for adults sexually abused as children include "major depression, generalized anxiety, phobias, cognitive disturbance, and personality disorder" (Beutler & Hill, 1992, p. 204). The general symptoms for children who were sexually abused include acting out behaviors, suicidal ideation, self-mutilation, anger, guilt, fear of authority, shame, and trust problems with the forming of and in the maintaining of relationships (Inter-Ministry Child Abuse Handbook, 1985).

#### Effects of Physical Abuse

Physical abuse includes any non-accidental physical injury to a child caused by the child's caretaker. By definition the injury is not an accident. "Physical abuse may result from over-discipline or from punishment that is inappropriately harsh considering the child's age or offense" (Montana School Guidelines, 1990, p. 9). Physical abuse is often easily detected since you can see the burns, cuts, or bruises inflicted. In certain extreme cases physical abuse can result in death.

The effects of physical abuse include psychological symptoms, sexual problems, and aggression and criminality (Briere & Runtz, 1990). These symptoms manifest themselves in people being wary of physical contact and closeness with adults. The physically abused child will also demonstrate extremes in behavior that lie outside the range expected for the child's age group (Montana School

Guidelines, 1990). The result of physical abuse "may produce aggression toward others as the child generalizes from experiences with abusers and assumes aggression to be an appropriate form of interpersonal behavior when angry or distressed" (Briere & Runtz, 1990, p. 361).

### Educational Environment Effects

"Incest is a social process, and its survivors continue their lives in an intricate social world. While it is clearly useful to catalog victim's reactions, to study families, and to examine their treatment in the social services, these approaches forget that survivors carry this unique experience with them in everyday life" (Tomlin, 1991, p. 564). The educational setting is one environment where maltreated people carry these experiences. These unique experiences will have a direct impact in the educational environment which is part of a college student's everyday life.

The traits most frequently observed in clinical settings dealing with the educational symptoms of maltreated children are learning disabilities, excessive aggression or impulsiveness, interpersonal conflict, and social isolation (Barahal et al., 1981). The evidence comparing groups of abused children with non-abused children demonstrates that there are "detrimental consequences for not only these students' intellectual development, but also for their social and emotional development" (Roscoe, 1985, p. 392). In the classroom, most children accept

physical closeness to a teacher; the abused child avoids it, sometimes even shrinking at the touch or approach of an adult.

Negative life experiences like those associated with childhood maltreatment effect the normal development processes involved with learning. These associations can lead to "less productive intellectual skills and fewer social cognitive competencies" (Barahal et al., 1981, p. 512). "Kinard (1980) and Martin and Breezley (1976) have assessed the self-concepts of abused children and found that not only do they possess lower self-concepts, they are more likely to maintain these negative self-concepts" (Cryan, 1985, p. 388) through life.

#### Long-Term Effects of Childhood Maltreatment in the Educational Environment

The evidence showing the negative consequences of childhood maltreatment for adults in the educational setting are scarce. It is reported that "the various types of child abuse have both specific and overlapping effects on later psychosocial functioning" (Briere & Runtz, 1990, p. 361), but the reports of its effects on adult cognitive functioning are uncommon. The research does indicate that academic skills deprivation can be associated with childhood maltreatment. Those adults who have never developed compensatory educational skills related to their maltreatment are without the means to develop self-esteem (Phipps, 1981). The academically unprepared adult who has compensated for the maltreatment will need remedial assistance in post-secondary education while the adult who has not compensated will need counseling and personal help (Phipps, 1981).

Academic skills deprivation may be more symptomatic of other learning deficiencies, such as those that deal with the specific unobservable cognitive processes involved with learning. These unobservable mental processes are the aspects of learning that are most difficult to diagnose because they are part of the cognitive learning process. The cognitive learning process can best be explained through a description of cognitive learning theory.

### Principles of Cognitive Learning Theory

One of the learning theories discussed in educational psychology is the cognitive learning theory. Cognitive learning theorists "are concerned almost exclusively with human learning, particularly with the unobservable mental processes individuals use to learn and remember new information or skills" (Slavin, 1992, p. 99). For optimal learning to occur the Sensory Information System is utilized. The Sensory Information System is the specific biological and physiological functions used for learning. These functions include the use of sensation, perception, motivation, and short-term and long-term memories to acquire and retain information. It is a developmental process whose pinnacle is higher order thinking skills, the skills needed to succeed in higher education.

### Cognitive Development and Learning

Jean Piaget, a child psychologist, describes cognitive development as progressing through four distinct stages. It is through these stages that allow for

"major reorganizations in the child's thinking" (Slavin, 1992, p. 26) as the child develops. The stages of cognitive development are sensori-motor (birth to 2 years), pre-operational (2 to 7 years), concrete operational (7 to 11 years), and formal operational (11 years to adulthood) (p. 27).

Learning for the college student takes place at the formal operational stage of development. At this stage abstract thought and reasoning abilities, which are higher order thinking skills, are utilized for learning. These include intelligence, aptitude or ability, and the attitudes and behaviors a person brings to the learning environment. For actual learning to occur at this stage of development there are five cognitive components involved. These cognitive components are sensation, attention, perception, short-term memory, and long-term memory. Sensation can be described as information being processed through visual, auditory or kinesthetic (motor) sense areas. People pay 'attention' to this information, screening out useless information through this process, for example, environmental noise. People pay attention to the information that will be useful for them. Attention to these stimuli is motivated by alertness, selectivity, and sensitivity (Slavin, 1992). Without attending to a source of information, learning is not likely to occur.

The next step of the process involves one's perceptions of the stimuli to which one attends. Perception is influenced by mental state, past experiences, knowledge, and motivation (Slavin, 1992). Perception deals with perceiving or interpreting the information received through the senses. It is the part of the cognitive process where one relates new information to previously stored feelings

and memories. If one perceives this stimuli as being useful by applying it to past experiences, this information is transferred to short-term memory. If one perceives the new information as being threatening or harmful, it is often distorted or rejected.

Short-term memory is a storage system that allows the individual to decide whether perceptions should be retained. It is the passageway to the long-term memory. Short-term memory is the working area in which we decide which perceptions need to be processed further. In this processing, past experiences, memories, self-concept, and self-actualization affect decisions regarding storage in the long-term memory.

The long-term memory is divided into three major processing areas. These are the episodic, semantic, and procedural. These areas involve the storage and retrieval of our past experiences. Episodic memory "stores our memories and personal experiences" (Slavin, 1992, p. 157). It contains past images and experiences organized by where and when they happened. Semantic memory "stores facts and generalized knowledge" (p. 157). Semantic memory involves the organized networks of connected ideas and relationships called schemata. "Schemata are networks of related ideas that guide our understanding and action" (p. 157). It is the part of our memory process that allows for the integration of information with previously stored information. The third part of the long-term memory is procedural memory. Procedural memory stores "knowledge of how to do

things" (p. 157). It allows for the recall of how to do something, especially physical tasks.

The effects of maltreatment cause impairments in cognitive development, but the processes involved in learning are not only cognitive. Learning is an interrelated process involving other elements. One of these elements is psychosocial development. Psychosocial development is the process in which a person develops a realistic picture about him/herself.

#### Psychosocial Development and Learning

Psychosocial development is the psychological and social development of a person, or the development of self-concept. "Self-concept or our sense of self includes the way we perceive our strengths, weaknesses, abilities, attitudes, and values" (Slavin, 1992, p. 74). Self-concept formation is highly dependent on the way a person was raised. Self-concept is the total effect of experiences with peers, family, school, and adults which result in a mental image of ourselves. "The influence of the child's family, which was the major force during the early childhood years, continues in importance as parents provide role models in terms of attitudes and behaviors" (p. 74). The families of maltreated children send the wrong collection of beliefs about the kind of person they are. This "lack of a positive self-concept can severely damage a child's social development" (p. 74).

The effects associated with childhood maltreatment will have an impact on an adult's self-concept which will affect learning. "Research in developmental

psychology reveals that self and social development are important, continuing themes throughout infancy, childhood, adolescence, and adulthood and that each developmental transition is associated with revision and change in one's self-definition and integration, in the self-regulation of behavior and affect, and in the scope and quality of one's social relationships (Cole & Putnam, 1992, p. 180). If a person does not feel loved and protected, this will have a profound effect on their learning. "The pain of facing extreme narcissism in a parent or parental figure activates repressive mechanisms, eventual sexual and interpersonal inhibitions, and self-loathing and masochism" (Stearns, 1986, p. 465). These characteristics are not the most conducive characteristics for the learning of subject content.

Another component of learning on which childhood maltreatment may have an effect is with motivation and personality development. This component of the developmental process influences self-actualization. Self-actualization is the process of becoming who one can become in life. "The coordination of a secure, integrated sense of self and meaningful interpersonal relationships forms the core of the maturely functioning adult" (Cole & Putnam, 1992, p. 176).

### Motivation and Personality Development

Abraham Maslow's theory of personality and motivation development is important when discussing childhood maltreatment and its influence on cognitive abilities. The effects of childhood maltreatment impact the very core of a person's

development. "Motivation is one of the most important prerequisites for learning" (Slavin, 1992, p. 318); "it is the drive, need or desire to do something" (p. 328).

"One use of the concept of motivation is to describe a general tendency to strive toward certain types of goals" (p. 328). Personality development can be viewed as having "traits that are reinforced over a long period of time" (p. 328). An example of this would be a love of school. The person who gets positive strokes in school for performing well will tend to enjoy school more and be motivated more than the person who does not. The student's personality will be motivated to achieve life goals through school, in many cases college, as the avenue needed to achieve their life's goals.

Maslow describes two types of human needs that have to be satisfied so that motivation and personality development can proceed normally. He divides these needs into two categories; deficiency needs and growth needs. Deficiency needs (physiology, safety, love, and esteem) are those needs that are critical to physical and psychological well being. Growth needs (the needs to know and understand, to appreciate beauty, and to grow and develop in appreciation of others) lead to what Maslow calls self-actualization. "Self-actualization is characterized by acceptance of self and others, spontaneity, openness, relatively deep but 'democratic' relationships with others, creativity, humor, and independence, in essence psychological health" (Slavin, 1992, p. 322).

The characteristics associated with maltreatment impact self-actualization. For abused children, the failure to develop a sense of self is a major deterrent in

forming relationships with others because of the constant fear of physical assault or abandonment (Fatout, 1990). Sexually abused individuals have trouble forming stable relationships because of the early message that people who love you will hurt you. The implications for learning deficits are apparent. If the consequences of maltreatment cause "a hyper-vigilant preoccupation with the behavior of others, which leaves little time or energy for exploring and enjoying the world or relationships with others" (Fatout, 1990, p. 77), the child will not be able to focus on learning subject content.

The consequences of abuse for children's social development are many. They become asocial, lonely children who need attention of others yet who act in ways that insure their isolation. Abused children tend to antagonize their peers and teachers and avoid interacting with them when possible. This self-imposed segregation continues to inhibit the development of more mature and appropriate social skills, and simultaneously limits their intellectual and emotional progress. (Roscoe, 1985, p. 392)

In the educational setting maltreated students may not perform adequately. Their innate aptitude and abilities for achieving in school will not be nurtured and develop normally. Their school grades will not mirror their ability. Abraham Maslow believes that healthy children will, much of the time during their development, choose what is good for their growth. The question that arises here is what could have the unhealthy or maltreated child attained if childhood maltreatment had not been a factor in motivation and personality development.

### Childhood Maltreatment Effects on Learning Abilities

The effects of childhood maltreatment are well documented as having profound adverse effects on a young student's intellectual, emotional and social development (Aber, 1987; Cryan, 1985; Einbender & Friedreich, 1989; Fatout, 1990; Ivey & Ivey, 1990; Oates & Peacock, 1984). Some of the effects on very young children are developmental lags, lower IQs, deficits in gross motor development, and speech and language delays. The literature shows that children from maltreating families score lower than their peers on several measures of cognitive and physical competence and on ratings of motivation (Vondra, Barnett, & Cicchetti, 1990). "A battered child's intellectual development has been demonstrated as having significantly lower mean scores than comparison groups on the verbal performance and the full scale scores on the WISC-R and the WPPSI" (Oates & Peacock, 1984, p. 27). In their studies, Oates and Peacock found "that children who have suffered from physical abuse have lower mean intelligence quotients on follow up at an average of five and one half years, than a group of comparison children from the same social class" (Oates & Peacock, 1984, p. 28).

The research consistently demonstrates how the detrimental consequences of sexual abuse affect young children in the cognitive areas (Cryan, 1985; Ivey & Ivey, 1990; Heilig, 1990). The specific problems related to success in school for the maltreated child include distractibility, resistance, rebellion, and extreme manipulation. "These children are often very concrete, responding only to what

they can immediately see and hear. They have little ability to fantasize, are easily confused, and are apt to react to situations they perceive as stressful with increasing anxiety" (Fatout, 1990, p. 80). Their behavior extremes at times will appear inappropriate causing reactions to situations that most people cannot understand. This is understandable because "children exposed to an atypical environment may attempt to adapt by turning away from external stimuli so as to reduce their impact" (Reider & Cicchetti, 1989, p. 390).

### Learning and Memory

The effects of childhood maltreatment may impact learning and memory. "Learning and memory are facilitated when the learner constructs images and verbal representations that relate old memories to new information, especially in organized or sequenced ways" (Whittrock, 1986, p. 311). The maltreated child may have some interruption in the learning process due to developmental lags caused by the maltreatment. If one is being maltreated that person's thoughts, feelings, and emotions are focused on the maltreatment and not on the absorption of subject content. Curricula in schools are structured to build on previously learned information or facts. Maltreatment can cause gaps in this hierarchial learning process. The skills being taught will be overshadowed by the affective consequences of the maltreatment, resulting in deficit learning. Maltreated children will not perform adequately when new information is being presented because they are constantly on guard, or in a hyper-vigilant state, waiting for adversity even in

the classroom setting. "Children who have been battered become watchers. They learn to observe acutely and to be highly sensitive to adults and any sudden or inexplicable changes in the environment" (Roscoe, 1985, p. 391).

"To further insure their safety, abused children learn to change and shift their behaviors to be in accord with expectations of the adults around them. They learn to be flexible and to be what they perceive adults want them to be; hence they are like chameleons taking on the various characteristics of their settings" (Roscoe, 1985, p. 392). This could account for the reason why some maltreated students are doing well in the educational environment. Many maltreated students have learned to appease adults. Appeasing teachers equates to success in the educational environment. These students have become perfectionists and overachievers.

#### Perfectionism and Overachievement

There are several reasons many maltreated students are underachievers in the educational setting, but many of these students have also become overachievers. The sexual abuse survivor has learned that "because he cannot adequately protect himself, he is inferior, and no one can preserve positive self-esteem while feeling powerless and inferior" (Lew, 1990, p. 118). "In these ways, feeling flawed and incomplete, believing that his only protection lies in complete power, strength, intelligence, and competence" (p. 118), the maltreated child has become a

perfectionist. "In order to be OK, he must be perfect and do everything right" (p. 119).

One of the outcomes of perfectionism is overachievement. For example, "the perfectionistic incest survivor remains driven, lest he lose what he has attained and thereby reveal his true nature to the world -- a failure" (Lew, 1990, p. 120). The perfectionistic and overachieving student is rewarded in the educational environment and may be hiding the effects of the maltreatment under this facade of perfectionism. The enlightened teacher needs to be aware that childhood maltreatment can also be the circumstance for the non-problematic overachieving student.

#### Long-Term Effects of Childhood Maltreatment

The psychological symptoms associated with the long-term effects of childhood maltreatment are clearly documented in the literature. The long-term impacts of childhood sexual abuse have been linked "to a variety of later problems and symptoms including depression, interpersonal difficulties, sexual problems, and suicide" (Briere & Runtz, 1990, p. 357). The long-term impacts of physical abuse have been linked to "psychological symptoms, sexual problems, and aggression and criminality," and the long-term impacts of psychological child abuse, with almost no empirical research studies completed, "have been linked to suicidal ideation, and a variety of other psychological symptoms" (p. 357).

These long-term psychological effects of childhood maltreatment reflect a stark reality for these victims, but adulthood affords the "physical distance that can promote and pave the path for the ability to reflect on and to reason about the childhood sexual experience" (Cole & Putnam, 1992, p. 179). This is the process involved in healing from the maltreatment. "The average age of the adult incest survivor in retrospective studies other than college samples, 32-38, suggests that the incest victims enter a period of self-reflection" (p. 179). It is through this introspection that these people can assess their abusive childhood situation and reflect on its effects.

### Learning and Study Strategies

According to Weinstein (1990), college and university students learn by the way they process information and in the way they transform that information. Learning involves the use of specific learning styles and strategies that are used for this process. "Learning strategies are the techniques or skills that an individual elects to use in order to accomplish a specific learning task" (Fellenz & Conti, 1989).

The learning strategies used by college students involve "comprehension monitoring, knowledge acquisition, active study skills, and support strategies" (Weinstein, 1990, p. 18). Comprehension monitoring strategies are your "executive control function; knowing when you know, knowing when you don't know, and knowing what to do about it" (p. 18). Knowledge acquisition strategies are "the

building of connections between what you already know and what you are trying to learn" (p. 19). "Active study skills means putting more active information processing constructs into study skills" (p. 19). "Internal support strategies "relate to the way that we help to create and to maintain internal climates for learning" (p. 20).

Support strategies involve internal and external strategies that are involved in learning. According to Weinstein, external strategies are lighting, room environments, paper and books. Internal support strategies involve the affective variables involved with learning. These are attention, perception, motivation, and concentration. These "internal support strategies relate to the way that we help to create and to maintain internal climates for learning" (Weinstein, 1990, p. 20). Internal support strategies include being able to focus attention, which helps to generate motivation and interest. They include diligence and motivation, time management, and the internal strategies a person uses when dealing with anxiety related to learning (Weinstein, 1990).

## CHAPTER 3

### METHODOLOGY

#### Research Design

This research study is a descriptive case study. Descriptive research studies involve "collecting data in order to test hypothesis and to answer questions concerning the current status of the subjects" (Gay, 1987). This study is also a "bounded system" case study. "The bounded system, or case, is an examination of a specific phenomenon such as a program, an event, a person, a process, an institution or a social group" (Merriam, 1988, p. 10). A description of the demographic variables is provided in percentages and frequency counts along with a description of the learning style and study strategy inventory results.

The key variables examined were those students who experienced childhood maltreatment and those students that were not maltreated. The results of participant self-identification of non-maltreated, physical abuse, sexual abuse, and psychological abuse or a combination of each is reported.

The demographic variables in the study were examined by computing percentages and frequencies. *t*-tests were used to compute mean scores on the demographic variables and on the LASSI subscales for the three groups. The

demographic variables potentially related to student learning included age, gender, marriage (single, married, divorced, separated, widowed), ethnicity (African American, Asian, Caucasian, Native American, Hispanic, Other), year in college (Freshman, Sophomore, Junior, Senior, Graduate), grade point average (4.0-3.6, 3.5-3.1, 3.0-2.1, 2.0-1.1), geographic area (rural, suburban, urban, combination), socio-economic status (wealthy, middle class, poor), psychological counseling (yes, no), diagnosis of learning disabled and behavior disorder (yes, no), whether as a student they would classify themselves as being organized (yes, no), perfectionistic (yes, no), persistent (yes, no), motivated (yes, no), low achiever (yes, no), and on ratings of self-concept (excellent, good, fair, poor), psychological health (excellent, good, fair, poor), and if grades equal ability (yes, no) with the maltreated and non-maltreated participants.

The Learning Styles and Study Strategy Inventory (LASSI) mean scores for each of the groups were also examined. The LASSI subscale scores examined were attitude, motivation, time management, anxiety, concentration, information processing, selecting main ideas, study aids, self-testing, and test strategies. *t*-tests were used to describe differences among the total, maltreated, and non-maltreated group scores.

### Population Description

The study was conducted at Montana State University, a 1,170 acre campus with a total student enrollment of approximately 10,000, located in western Montana. Montana State University, which had its conception as a land-grant

institution, "is a four year, public comprehensive land grant University with undergraduate and graduate programs in liberal arts, basic sciences, the professional areas, agriculture, architecture, business, nursing, education, and engineering" (Montana State University Undergraduate Bulletin, 1993-1994, p. 1).

The population for the study consisted of 198 students enrolled for the 1993 summer session at Montana State University. The population was selected from classes in several of the colleges within the university. These were the College of Letters and Science (Public Communication, SPCM 110); College of Engineering (Rigid Body Mechanics, EM 252); College of Business (Managerial Accounting, BUS 222); and College of Education, Health and Human Development (Counseling and Family Enrichment, HDCO 415; Introduction to Multicultural Education, EDCI 240; Foundations of Instructional Computing, EDCI 320; and Exceptional Needs, HDCF 356).

### Instrument

The Learning and Study Strategy Inventory (LASSI) is an "assessment tool designed to measure students' use of learning and study strategies and methods. The focus is on overt thoughts and behaviors that relate to successful learning and that can be altered through educational interventions" (Weinstein, 1987, p. 2). There are 10 learning and study strategy subscales measured by the LASSI. These are Attitude, Motivation, Time Management, Anxiety, Concentration, Information Processing, Selecting Main Ideas, Study Aids, Self Testing and Test Strategies.

The Learning and Study Strategies Inventory (LASSI), according to Weinstein (1987), is meant to be used as:

- (1) a diagnostic measure to help identify areas in which students could benefit most from educational interventions;
- (2) a basis for planning individual prescriptions for both remediation and enrichment;
- (3) a pre-post achievement measure for students participating in programs or courses focusing on learning strategies and study skills;
- (4) an evaluation tool to assess the degree of success of intervention courses or programs; and
- (5) a counseling tool for college orientation programs, developmental education programs, learning assistance programs, and learning centers. (p. 2)

### Validity

The validity of an instrument "deals with whether the instrument is truly measuring the specific trait that it is supposed to measure" (Huck, Cormier, & Bounds, 1974, p. 9). Although Weinstein does not specifically report construct, content, and criterion-related validity, she argues that the LASSI is valid because

A number of different approaches have been used to examine the validity of the LASSI. First, the scale scores have been compared, where possible, to other tests or subscales measuring similar factors. Second, several of the scales have been validated against performance measures. Finally, the LASSI has been subjected to repeated tests of user validity. Professors, advisors, developmental educators, counselors, and learning center specialists at more than 30 colleges and universities have used the LASSI advisors on a trial basis. They report few, if any, administration problems and a high degree of usefulness in their settings. (Weinstein, 1987, p. 6)

Such a statement leaves the validity of the LASSI up for question when dealing with the affective variables of attention, motivation, anxiety, and concentration in measuring the cognitive processes involved with learning.

### Reliability

"The reliability of an instrument deals with whether or not the instrument can measure the same trait consistently upon repeated measures" (Huck et al., 1974, p. 9). The reliability of the LASSI was established through the test-retest procedure. The reliability scores for the 10 LASSI subscales are as follows: Attitude = .75; Motivation = .84; Time Management = .85; Anxiety = .83; Concentration = .85; Information Processing = .72; Selecting Main Ideas = .78; Study Aids = .75; Self Testing = .78; Test Strategies = .81 (Weinstein, 1987, p. 6-10).

Norm scores were developed using a "sample of 880 incoming freshman from a large southern university" (Weinstein, 1987). Coefficient Alpha's for the scales range from a low of .72 to a high of .85, demonstrating a high degree of stability for each of the scale scores (Weinstein, 1987).

### LASSI Scales

The first scale of the LASSI is the Attitude Scale which assesses a student's general attitude towards school and their general motivation for succeeding in school. "If the relationship between school and their life goals and attitudes about themselves and the world are not clear, then it is difficult to maintain a mind-set

that promotes good work habits, concentration, and attention to school and its related tasks" (Weinstein, 1987, p. 6). Childhood maltreatment affects a person's attitude about themselves. Does the maltreated college student have the mind-set to achieve in this setting?

The second scale of the LASSI is the Motivation Scale which assesses student willingness to put forth the effort to achieve in school. Childhood maltreatment may affect motivation in the way that certain psychological symptoms associated with childhood maltreatment affect the motivation needed to complete course work (e.g., depression or low self-esteem).

The third scale is Time Management. This scale assesses what students know about time management and what they do about it. Students who score low on this measure may need to learn about how to create a schedule and how to deal with distractions and competing goals. The residual effects of childhood maltreatment may impact time management skills since these students may not have developed the skills needed to use their time effectively.

The fourth scale on the LASSI is the Anxiety Scale. "One of the most common things that decrease the effectiveness of student performance is anxiety or worry" (Weinstein, 1990, p. 24). "Worry is often manifested in something we call negative self-talk which feeds on itself" (p. 25) or negative personal axioms. Negative axioms lead to irrational beliefs or irrational anxieties about school and life and are detrimental to learning. "Individuals who endorsed having experienced physically abusive childhoods were more likely to agree with self-depreciative

































































































































