



Transformative learning experiences of adult vocational rehabilitation learners at the Helena College of Technology
by Kirsten Rae Graham

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

The professional literature is silent on the effects of pain on transformative learning. Additionally, there is scant mention of the effects of concurrent or multiple transitions on the individual experiencing transformative learning.

About 12 to 15 percent of the adult student population at the Helena College of Technology (the College) are individuals who are no longer able to perform their jobs due to career-ending injuries, disease, or mental or emotional problems. This group of adults enrolled in school for education and training to return back to the workforce in the same or a new vocational occupation. Referred to as vocational rehabilitation (VR) learners, they may be sponsored through private insurance companies or the Montana Vocational Rehabilitation (MVR) program. This research study concerned only the segment of VR learners enrolled in the College's computer technology program and participating in the MVR program as a result of career-ending injuries.

The purpose for my phenomenological qualitative study was to investigate what it means for previously injured workers to participate in a vocational rehabilitation program. I obtained vivid descriptions from adult VR learners enrolled in the computer technology program of their experiences from before their injuries to their attendance at the College. What did this period of time mean to them? Did transformative learning occur? If so, under what circumstances and with what effects? Adult VR learners have indeed suffered a serious disorienting dilemma. I found eight core themes - essences - that describe the VR learner's experience: (a) the VR learner once performed physically demanding jobs; (b) a career-ending injury forced the injured worker to make decisions regarding his or her future; (c) initial and following reactions to the career-ending injury vary widely by individual; (d) attendance at the College is an outcome of one of those tough decisions; (e) the recovering individual is forced to deal with myriad systems; (f) while at the College, the VR learner is faced with multiple issues; (g) chronic pain pervades the VR learner's experience; and (h) the recovering individual, once independent, descends into dependency and slowly ascends to regain new autonomy. The adult VR learner emerges from the experience transformed. The injured worker who entered the College is not the same person who graduates two years later.

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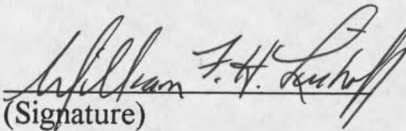
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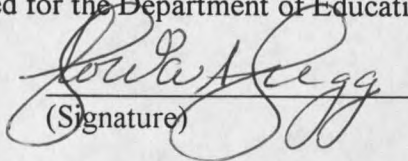
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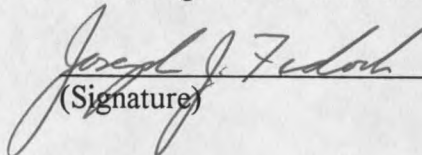
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I dedicate my study to all adult vocational rehabilitation learners in formal institutions of postsecondary education struggling to make sense of their situations and to get on with their lives the best they can.

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My participation in the Adult and Higher Education doctoral program was a large undertaking and involved many people in my life-world. Foremost among them was my husband, Frank. For three and a half years he understood my attending classes, writing papers, and being absent on too many weekends. Through it all he maintained a wonderful sense of perspective and humor. An inspiration and example of quiet resolve was Patricia Cranton, author of many books and articles on transformative learning. I will never forget her e-mailed words, "You have found me. How can I be of help?" Patricia nurtured me through the research process and epitomized by her unassuming actions the processes of epoche and bracketing. The many subscribers of the Internet qualitative listserv discussion group may not be aware of the hints, techniques and conversations that helped me in so many ways. The group bolstered my confidence to approach my research study in my own way and in a manner best suited to phenomenological investigation. The five members of my doctoral committee – William Lieshoff (Chair), Gloria Gregg, Bob Fellenz, Sylvia Cobos Lieshoff, and Jennifer Elison – challenged me to meet their high standards yet provided me sufficient support and encouragement. Finally, my acknowledgment would be incomplete without mentioning the research respondents themselves, the men and woman who took the time out of their busy lives to share with me their important stories. They honored me by their trust. To all of you, thank you.

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ABSTRACT

The professional literature is silent on the effects of pain on transformative learning. Additionally, there is scant mention of the effects of concurrent or multiple transitions on the individual experiencing transformative learning.

About 12 to 15 percent of the adult student population at the Helena College of Technology (the College) are individuals who are no longer able to perform their jobs due to career-ending injuries, disease, or mental or emotional problems. This group of adults enrolled in school for education and training to return back to the workforce in the same or a new vocational occupation. Referred to as vocational rehabilitation (VR) learners, they may be sponsored through private insurance companies or the Montana Vocational Rehabilitation (MVR) program. This research study concerned only the segment of VR learners enrolled in the College's computer technology program and participating in the MVR program as a result of career-ending injuries.

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Adult VR learners have indeed suffered a serious disorienting dilemma. I found eight core themes – essences – that describe the VR learner's experience: (a) the VR learner once performed physically demanding jobs; (b) a career-ending injury forced the injured worker to make decisions regarding his or her future; (c) initial and following reactions to the career-ending injury vary widely by individual; (d) attendance at the College is an outcome of one of those tough decisions; (e) the recovering individual is forced to deal with myriad systems; (f) while at the College, the VR learner is faced with multiple issues; (g) chronic pain pervades the VR learner's experience; and (h) the recovering individual, once independent, descends into dependency and slowly ascends to regain new autonomy. The adult VR learner emerges from the experience transformed. The injured worker who entered the College is not the same person who graduates two years later.

CHAPTER ONE

INTRODUCTION

Moustakas says, "In phenomenological research, the question grows out of an intense interest in a particular problem or topic. The researcher's excitement and curiosity inspire the research. Personal history brings the core of the problem into focus" (1994, p. 104). This introductory chapter highlights my personal history and interest in the two subjects, vocational rehabilitation and transformative learning, and links them together to form the basis for this investigative research project. This report manuscript follows a format recommended by Moustakas in his book, Phenomenological Research Methods (1994).

Personal History

Having served a career in the U.S. Army with healthy young soldiers in top physical condition, I had very little idea what vocational rehabilitation meant. Then two incidents brought it into clearer focus: my post-retirement employment with the Helena College of Technology in the fall of 1993, and the horrifying accident suffered by our adult son in May, 1995. Beginning work as a full time instructor at the Helena College of Technology brought me into a world different from all my previous experiences of living and working with people who were fully able-bodied and generally without barriers to

employment and education. Of special interest to me in this new employment have been the adults who had experienced career-ending injuries yet made personal decisions to return to school and learn a new profession utterly unlike anything they had done before. Although the actual population of such adults is unknown due to confidentiality of their academic records, I estimate approximately twelve to fifteen percent of the adult students at the Helena College of Technology receive state or private insurance company vocational rehabilitation funds to attain their associate of arts degree in a recently selected vocational field. These adult students are highly motivated to get on with their lives.

Our son was permanently crippled as a result of a vehicle accident caused by an inattentive driver. His immediate and extended families were thrown into a whirlwind of seemingly callous hospital rules, proficiently busy trauma ward nurses, and snippets of doctors' time during his early stages of intensive care. We had many questions and never enough answers. As he required daily attention, his immediate family also required assistance in dealing with the myriad complex authority systems with which we had to deal. We learned there is more than the one victim in an accident. More people become involved as the ripples from the stone thrown at the victim spread outward to family, friends, work, and community. Recovery and recuperation proved to be a mixed blessing. Severe emotional and physical pain experienced by the victim in the center involves those around him as they moved in and out of his tough life, seemingly powerless to alleviate the suffering. Then came the day in his livingroom four months later, 45 pounds lighter than his muscled weight of 220 pounds, sitting abjectly in his hospital wheelchair, talking non-stop for an hour in a one-way conversation to us, when suddenly he looked up and stated,

“Well, I can be a lump or I can get off my butt and be somebody.” On that day, his real recovery began. On that day, our recovery began, too.

My interest in transformative learning grew as a product of my doctoral program in adult and higher education. I continued teaching at the vocational college while pursuing my studies but with increasing dissatisfaction that something was lacking in our teaching approach. Instruction was competency-based and our students learned good technical skills, but there were pleas for individual recognition. My exposure to humanist principles and constructivist theory led me to experiment with new teaching techniques. My teaching style slowly transformed. I experimented with alternative methods for evaluating students in my classes and was immensely rewarded by their enthusiasm and feedback. Then Mezirow's theory of perspective transformation caught my interest, albeit emanating from discussions of Paulo Freire. Meanwhile, I had always admired our vocational rehabilitation learners for constantly juggling their many life priorities while attending school. It was but a short leap to connect transformative learning concepts with the population of vocational rehabilitation learners in our institution who were experiencing numerous personal transitions as they progress through their program from a previous life to a hopeful new life. Not only was I interested in their experiences as participants in a vocational rehabilitation program, but also in their experiences of personal transformation.

From the multiple perspectives of an educator, a parent, and now as a researcher, I am intimately and inextricably involved with the experiences of people undergoing major life transitions due to significant injury. These personal involvements provide the context

for my curiosity about transformations and serve to explain my undertaking a study that explores what it means to be a vocational rehabilitative learner.

Problem/Curiosity

These two incidents fueled my passion and curiosity to learn more about the world of people adjusting to their new lives after suffering a career-ending injury. The topic is important to me in a very personal way, but it is also relevant to our postsecondary school setting at the Helena College of Technology. Instructor teaching loads in the Department of Business range from about 80 to 120 students each semester. It is not possible to know each student's background and motivations for attending school. But through this study, I could learn about the population of vocational rehabilitation adults and share the results with fellow instructors so they too can have an awareness of and appreciation for the experiences of this special population of learners. There may be more we can do as instructors and as an institution to provide necessary support and understanding as the adult vocational rehabilitation learners struggle with major life transitions. But the first step in helping them is to try to better understand their experiences.

Complementary to understanding the vocational rehabilitation learners themselves is understanding the emerging theory of transformative learning. Transformative learning is about individual change and in its deepest form, provides a basis for emancipation from personal histories that serve to constrain the learner in some way. I anticipate that our adult vocational rehabilitation learners, stung by career-ending injuries and now vulnerable yet open to new experiences, are likely candidates for personal transformations.

Purpose

The purpose of this phenomenological qualitative study is to investigate what it means for previously injured workers to participate in a vocational rehabilitation program. It was my intent to obtain from adult vocational rehabilitation learners their vivid descriptions of the time from before their injury to their attendance at the Helena College of Technology. What does this period of time mean to them? Does transformative learning occur? If so, under what circumstances and with what effects?

Life changes take place within rich sociocultural and psychological contexts (Hobson & Welbourne, 1998). Transformative learning cannot be separated from the people experiencing it. It was important to first develop the meaning of the vocational rehabilitation experience from a phenomenological perspective and then to search for evidence of transformative learning.

Two broad areas of potentially new knowledge may arise from this study and contribute to the profession of adult education: (a) the meaning of the experiences of a segment of the federally-sponsored student population, the vocational rehabilitation learners; and (b) a better understanding of transformation theory and how it manifests itself within the context of a public postsecondary institution with the vocational rehabilitation population of adults retraining for a new vocation. Creswell (1998) states that, "a phenomenological report ends with the reader understanding better the essential, invariant structure (or essence) of the experience, recognizing that a single unifying meaning of the experience exists.... The reader should come away with the feeling that 'I

understand better what it is like for someone to experience that” (p. 55). It is my intent that the reader develop a better understanding of what it means to be a vocational rehabilitation learner at the Helena College of Technology, and how transformative learning fits in with their experiences.

Strategies of educational research can be linked to three basic orientations or worldviews; positivist, interpretive/constructivist, and critical (Carr & Kemmis, 1986; Lincoln, 1998). Positivist research produces knowledge that is objective and quantifiable, interpretive research seeks to find meaning in human experience, and critical research explores power, privilege, and oppression as manifestations of social institutions (Merriam, 1998). Qualitative research arises out of the interpretive paradigm and focuses on process, meaning, and understanding.

Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting (Creswell, 1998, p. 15).

In qualitative inquiry, the researcher is the primary instrument for data collection and analysis, and for reporting the results of the research effort. The researcher has made an avowed commitment to study and report on the social world from the perspective of the interacting individuals (Lincoln & Denzin, 1994, p. 577).

My philosophical basis for approaching a research effort of this type and magnitude is constructivist. As a constructivist, I am interested in understanding how individuals interact with their world – are constrained and regulated by their social constructions – to create knowledge. I do not reject the positivist paradigm; aspects of our

world respond to cause and effect relationships. There are problems of our world today that can best be explored and answered through quantitative investigation. But not all problems respond well to quantitative inquiry; science has not been wholly effective in dealing with issues of human experience and communication. Both qualitative and quantitative approaches to inquiry are valid and have application to our world. The questions that should be asked before selecting a research method have to do with rigor. Which paradigm will most rigorously pursue answers to the research question?

During the conduct of this study, my understanding of the experiences of vocational rehabilitation learners deepened as a result of my own serendipitous serious physical injury. The morning after an evening of transcribing a pilot interview, I was unable to stand upright. The pain in my lower back was excruciating. After many visits to the medical professionals and numerous diagnostic procedures, it was discovered I had a problem that could only be corrected by surgical intervention. Following the surgery, I attempted several times to return to my uncompleted doctoral dissertation, but suffered from continued pain and a head made fuzzy by the strong pain medication. It took effort and resolve to reduce the strength of the medication in order to return to writing.

The experience was intense and personal. Without warning, I had been thrust into dealing with the medical and insurance systems. It had interrupted my current work (being engaged in this study) for the surgery. I suffered through the post-operative recuperative period that involved limited mobility, created dependence on others, left me in pain, and subjected me to the influence of strong drugs. I constantly asked myself, "Did I make the right decision?" "Will the pain ever go away?" "Will I be able to return to my normal life

pursuits?" It was ironic that my incident happened during the conduct of this study. But it made me more appreciative of the similar experiences of the adult vocational rehabilitation learners with whom I had contact.

My personal experiences enabled me to relate to the research participants from an *emic* (insider) perspective rather than an *etic* (outsider) point of view. In her article on new methods for creating knowledge of educational phenomena, Lincoln (1998) calls for educational researchers to "seek understanding which is holistic, emic, and intimate" (p. 17). I had personal credibility and *entre* into the life-worlds of the vocational rehabilitation learners. I approached the research participants from the perspective of "one who knows, one who has been there." I could talk with them in terms with which they could relate.

This study is written to be read by four broad groups of people in addition to my doctoral committee: (a) the research respondents, the vocational rehabilitation learners themselves; (b) teachers of vocational rehabilitation learners in postsecondary institutions; (c) other educators of adults; and (d) counselors and other professional staff external to educational institutions who work with adult participants in vocational rehabilitation programs. Merriam (1998) advises to carefully consider the audience for whom the report is written when making choices of narrative style and voice. While remaining grounded in phenomenological concepts, I have purposefully written the narrative to blend the natural language customarily used by the intended audience with the professional language of our educational discipline. This study can help sensitize instructors and administrators in comparable institutional settings working with similar populations to the backgrounds and needs of these students.

Definitions

Adult Vocational Rehabilitation (VR) Learner

An adult VR learner is a student at the Helena College of Technology receiving funds, guidance, and counseling services through the Montana State Vocational Rehabilitation (MVR) program. To participate in the MVR, the adult VR learner must have suffered a career-ending injury.

Helena College of Technology (the College)

The Helena College of Technology of the University of Montana is a "two-year institution of higher education dedicated to developing technical expertise in students and meeting the technology-based demands of government, business and industry" (Helena College of Technology, 1996). The school offers 18 programs of instruction in the technologies, trades, business and allied health sciences culminating in either two-year Associate of Applied Science degrees or one-year certificates. The school also offers transfer courses that either culminate in a two-year Associate of Science degree or articulate with baccalaureate programs. Finally, the College serves as a center for higher education of the Montana University System, providing graduate and continuing education opportunities for citizens in Helena and the surrounding areas.

Incident

The incident is the precipitating accident or injury precluding an individual from continuing to work at his or her regular job. For some individuals, the incident was a

single event; for others, it was the final episode in a series of accidents or injuries.

Life Areas

Life areas are broad categories of human interactions or relationships such as career, education, health, leisure/hobbies, religion/faith, and family (Aslanian & Brickell, 1980).

Life-world (*lebenswelt*)

A term first introduced by Husserl which refers to the social world within which a person operates. "It is within the life-world that we learn what life means, what binds us together as human beings and what constitutes an autonomous personality" (Welton, 1995, p. 5).

Reflection, Critical Reflection, Critical Self Reflection

Thinking about the content of a problem, the process or procedures of problem solving, or the assumptions or presuppositions on which a problem has been posed, is called reflection. Critical reflection means to reflect on the presuppositions themselves. Critical self reflection is the process of reflecting on one's own beliefs, opinions, judgments, or assumptions regarding a subject (Cranton, 1998; Cranton, 1994; Mezirow, 1991).

Transformative Learning

Transformative learning is defined as the process of examining, questioning, validating, and revising perceptions of experiences, beliefs, opinions, and attitudes which

results in a more inclusive, discriminating, permeable meaning perspective, frame of reference, or personal paradigm for interacting with the world (Cranton, 1994; Mezirow, 1991).

Transition

A transition is a time of personal change, a time of leaving something behind and moving on to a new beginning (Bridges, 1980).

Vocational Rehabilitation

Vocational rehabilitation is a public or private program designed to return individuals back to work. Persons unable to perform the job they were customarily doing due to accident or injury, the onset of disease, or other reasons (emotional, stress, learning disability), may be eligible for job retraining in a privately or publicly funded vocational rehabilitation program.

Voice

The positivist paradigm has served as the predominantly accepted means for establishing truth about our world for several hundred years. Scientists and researchers have used that time to agree on format and style for what constitutes a good research effort and a good report on that effort. Qualitative inquiry has its own long history stretching back to psychological and anthropological studies of the 1800s. At the turn of the century, societal interests refocused on the human science concerns of education and psychology but methods of inquiry were influenced by the predominant scientific

paradigm. Through the first half of the 20th century educational issues were investigated using method-comparison research adopted from agriculture. Through the mid- to latter-1900s the social sciences grew to accept qualitative methodologies as appropriate for investigating problems of a social nature, but education lagged behind. Only within the last few decades, since the 1970s, has the education community begun to apply qualitative inquiry to its issues.

For too long, qualitative researchers have referred to their naturalistic studies using terminology from the quantitative realm and forcing their narrative reports into a quantitative format (Meloy, 1993). Typical five chapter reports of quantitative research are written in "the ubiquitous, disembodied voice" (Van Maanen, 1988, p. 74) of the researcher. Schön (1995) uses the term "institutional epistemology" (p. 27) to refer to institutional "conceptions of what counts as legitimate knowledge." Van Maanen (1996) refers to a "writing ideology" as "a set of beliefs that serve to justify or rationalize language use and textual practices in specific fields. When widespread and unquestioned, such beliefs become institutionalized as a matter of local culture writing styles and sink below awareness" (p. 376). Lincoln and Guba (1990) make it clear that the objectivity desired in a quantitative report is not the aim for qualitative research. Qualitative researchers share common characteristics with their quantitative counterparts to "act, interpret, synthesize, and tell" but "also by the very necessity, [qualitative researchers] ... interact, think, feel, try to understand, describe, and include human mixture in the interpreting and the writing. This compendium is the strength of qualitative researchers/writers/readers, not their Achilles heel" (Meloy, 1993, p. 325).

Conducting research is composed of two efforts: the process and product (Lincoln and Guba, 1990). Van Maanen (1996) questions whether the narrative form of the research report, which expresses the content to the reader, should be nothing in comparison to the content. He states that rhetorical choices are often based on a set of unquestioned textual practices typically "devoid of affect, interest, personality, artificiality, or textual construction" (p. 376). Van Maanen continues, "Self-presentation of a researcher as a nonpresence in the text relies on a stock set of textual practices, such as passive constructions, standardized formats, codified descriptions, disciplinary argot, and the avoidance of the first person pronouns" (p. 378). The language of research is learned. Whether we say "20 interviews were conducted" or "I conducted 20 interviews" is a rhetorical choice. The dominant passive writing style is "out-of-date and inadequate" (p. 379). Fetterman (1988) states that phenomenology, a variation of qualitative research, "is supposed to be a first person enterprise" (p. 193). Creswell (1998) suggests when creating a report narrative to use a "writing style that is personal, familiar, perhaps 'up close,' highly readable, friendly, and applied for a broad audience" (p. 170). Lincoln and Guba (1990), in their article on judging the quality of research reports, recommend a simple, clear writing style insuring careful construction of sentences "shunning inappropriate use of third person and passive voice" (p. 55). Recognizing the intimate nature of the relationship of the researcher to the qualitative study, Wolcott (1990) writes his descriptive accounts in the first person and urges that "others do (or, in some cases, be allowed to do) the same" (p. 19). Brookfield (1995), in the presentation of his paper to attendees at the 36th annual American Education Research Conference, advocated critical

analysis of scholarly publications.

As we read the educational literature we can ask ourselves whose voices are heard and whose are silent.... Does the author use a detached, distanced, third person style referring to 'the researcher' or 'this writer' in an objectified way? Or, does she write in the first person and acknowledge the centrality of her experiences and personality to the report? Are the findings presented in a formal, stilted, memorandum style with no sense of the hesitations, leaps forward, feelings of depression, or intuitive insights that accompanied the writer's efforts? (p. 37).

The researcher/author seeks authenticity. "Witnessing and personal testimony shape writing practices. [A qualitative researcher] says, 'I was there,' 'This happened to me,' 'I saw this.' Not being close to the action is suspect. Personal presence – increasingly textualized – is demanded" (Van Maanen, 1996, p. 380). Lincoln (1998), calling for new methods appropriate to social science research, states that the "old ways of gathering data and making meaning of data no longer suffice" (p. 23). One of the newly required skills for effectively reporting the results of qualitative inquiry is portrayal.

Portrayal differs radically from what we ordinarily think of as scientific writing, because the form of discourse is natural language, not the traditional language of social science. Conventional social science speaks with what has been called "the voice from nowhere;" portrayal, on the other hand, demands identifiable voices, voices which come from many 'somewheres.' Portrayal is the ability to craft compelling narratives, narratives which give outsiders a vicarious experience of the community, and which give insiders both a deeper understanding of themselves, and the power to act (p. 26).

Four research texts, in addition to numerous journal articles, provide guidance for writing the research report; Gay (1996), Creswell (1998), Merriam (1998), and Moustakas (1994). Interestingly, all four texts cite examples of research reports written in the first person active voice, and the texts themselves are written in first person active voice. The

American Psychological Association (APA) style manual states quite explicitly,

Inappropriately or illogically attributing action in an effort to be objective can be misleading. Writing 'The experimenter instructed the participants' when 'the experimenter' refers to yourself is ambiguous and may give the impression that you did not take part in your own study (1994, p. 29).

Denzin and Lincoln (1995) write of scholars "slowly coming to agreement on what constitutes a good and bad, or a banal, or an emancipatory, troubling analysis and interpretation," and that a "quiet revolution characterizes this work, a change in outlook, a transnational, transdisciplinary conversation, a change in practices and habits, as persons move away from older, more traditional versions of doing qualitative, interpretive work" (p. 350).

There is no one right way to write a research report (Creswell, 1998; Denzin and Lincoln, 1995; Meloy, 1993; Merriam, 1998). Lincoln and Guba (1990) encourage risk taking and suggest that narrative display of courage is a characteristic of good writing craftsmanship. Schön (1995) advocates trying something new, to "open up new forms of scholarship," particularly for the types of problems "susceptible to a kind of rigor that falls outside the boundaries of technical rationality" (p. 29). Van Maanen (1996) cautions us:

... silence has been the order of the day and such complacency does not serve us well no matter what narrative form we find attractive. Controversy about writing surfaces strongly held assumptions that have been long bottled-up. When they are talked about and debated, what was cultural becomes ideological and the genie is out of the bottle. Taken for granted practices now must be defended with arguments and examples and answered with counter-arguments and counter-examples (p. 381).

Schön (1995), asks, "How do you make [young people] free to do something new and different?" (p. 34).

This dissertation narrative reflects a yet new phenomenological method of inquiry as well as a personal writing style uncomfortable for some readers. But the rationale for proposing such a forward thinking effort are many. I am personally involved in this qualitative research study. The intended audience to whom this report is directed, is varied. Natural language couched within the education discipline and grounded by phenomenological concepts, is appropriate. Since there is no one way to report qualitative research, I offer creativity. The quiet revolution calls for a transformation within the educational community. Challenges to the old paradigm are respectfully offered; pleas for new scholarship are tendered.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Four initial themes comprised the review of literature for this study: the theory and philosophy behind phenomenological studies, data concerning state and federal programs for vocational rehabilitation, descriptions of transition as it pertains to adults, and development of transformative learning leading to illustrations of people transformed by their experiences. Later in the study as the theme of pain emerged, I conducted a search for articles dealing with chronic pain.

The above paragraph depicts a thematic classification of this literature review. The review of literature may also be described by categories or types of information. In fact the literature review is more accurately referred to as a review of the knowledge base as more than just literature is included: monographs (books), journal articles, on-line databases, dissertations, and people (personal interviews, telephone interviews, e-mail correspondence, or "conversations" on the Internet Qualitative Listserv bulletin board) and "other" types of documents (for example, the Report to the Montana Legislature on the Montana State Vocational Rehabilitation Program, 1997). A total of 110 separate bibliographic references were obtained for this study in the categories as shown in Table 1.

Thirteen scholarly journals are represented in these numbers. Although not all items were actually referenced in my dissertation report, they were useful for background information.

The column titled "on-line databases" deserves some explanation. Each of the eight databases provided information for several themes. For example, the PsychLit database returned search results for queries such as "adult learners" and "pain." I was unable to attribute PsychLit to just one research theme, and the same was true for the other databases. Thus, the on-line databases category spans all thematic categories.

Boolean search strategies were used for the databases.

Table 1. Numbers of Resources by Category

Theme Category	Books	Journal Articles	On-Line Databases	Dissertations	Other
Phenomenology		1			1
Vocational Rehabilitation	2	3			7
Transition	8	1			1
Transformative Learning	25	21	8	3	2
Pain	5	3			4
Research	8	11			

Methods

My home is 100 miles from the Montana State University-Bozeman campus and eight miles from Helena. I do not have easy access to university library facilities so I had to be more creative in obtaining relevant, current references. Our local liberal arts college,

Carroll College, had a few good resources. I drove periodically to both major libraries of the Montana University System and conducted on-site searches for books and articles through the computerized catalogs. But my greatest source of information was via the Internet. I made liberal use of the World Wide Web and storehouses of data available through on-line Web sites. Although costly, CARL (Colorado Alliance of Research Libraries) UnCover served as the most comprehensive, responsive source for current journal articles. The UnCover database of journal articles can be searched by keyword, author, or journal title. Since we have a facsimile machine at home, requested articles were faxed to me within 24 hours of my on-line requests. I ordered and received 30 articles in this manner. The local Helena College of Technology librarian was supportive of my requests for interlibrary loan. I purchased numerous books and journals through Internet book retailers. I also took advantage of an opportune trip to the east coast to search the on-line databases at Georgetown University in Washington, D.C.. While there, I visited personally with doctors and nurses working in the Chronic Pain and Physical Medicine clinics at the Walter Reed Army Medical Center for their advice on resources concerning pain. I attended the First National Conference on Transformative Learning at Columbia University Teachers' College where I attended seminars conducted by published authors in the field of transformative learning. A highlight of my trip was the opportunity to meet and talk with Jack Mezirow, chief proponent for the theory of transformative learning, and Patricia Cranton, acknowledged by Mezirow as a prolific author in the field of transformative learning. All these various sources of information proved valuable to my research effort.

Examples

Computer databases, available either via the Internet or on-site at traditional libraries, provided a wealth of information. The following databases proved useful: CARL UnCover, Educational Resources Information Center - ERIC (1984 - October 1997), Ovid Medline Biomedicine (1990 - 1998), Ovid SPORTDiscuss (1949 - March 1998), ProQuest digital dissertations (1980 - 1998 (with abstracts)), PsychLit (1981 - 1998), and UMI Dissertations. Table 2 provides search string examples and returned results for an ERIC database search. Search string keywords are purposely not capitalized.

Table 2. ERIC Database (1984 - October 1997) Search Results

Search String	Number of Returned Citations
transformative learning	0
transformations	3,232
critical thinking	3,475
pain	80
learning	22,738
pain + learning	1
adult learning	1,547
pain + adult learning	0
vocational rehabilitation	1,032
pain + vocational rehabilitation	3

Thematic Review of Relevant Literature

The purpose for the literature review was to find books, articles, studies, and people relevant to my investigation of the experiences of vocational rehabilitation adults as a context for transformative learning. My search took me to on-line databases, on-line publisher sites, on-line libraries, on-line dissertation abstracts, on-line journals and books, and traditional libraries, and put me in contact with informants in their respective professions. These professionals became integral to my study by providing me advice and sharing their perspectives. The following four sections - vocational rehabilitation, transition, transformative learning, and pain - summarize my review of resources relevant to this study.

Vocational Rehabilitation

Adults who have suffered career-ending injuries may turn to public or private vocational rehabilitation programs for retraining or job accommodation. Private vocational rehabilitation programs are generally run through insurance companies but the public vocational rehabilitation program falls under the auspices of the Office of Special Education and Rehabilitation Services within the U.S. Department of Education. Federal funds are distributed through the ten regions of the Rehabilitation Services Administration (RSA) on to state departments of human services where the federal funds are matched with state funds. In Montana, the federal vocational rehabilitation program is managed within the Department of Public Health and Human Services (DPHHS) through its ten offices in four geographic regions. The Helena office of vocational rehabilitation services

is a satellite office of the Butte region, and is staffed with two rehabilitation counselors.

Adults applying for federal assistance through the Montana Vocational Rehabilitation (MVR) program must meet three eligibility criteria: (a) have a physical or mental impairment that is a substantial impediment to employment; (b) possess the potential to perform work in the same or another vocational area; and (c) require vocational rehabilitative services to prepare for employment (Report to the Montana Legislature, 1997; C. Drynan [personal communication, September, 1997 and June, 1998]).

Once accepted for vocational rehabilitation, the vocational rehabilitation client works closely with a vocational rehabilitation counselor to jointly develop an Individual Written Rehabilitation Plan (IWRP). The IWRP shows specific, measurable goals oriented towards returning the individual back to employment. The IWRP may consist of formal schooling, internship training, or on-the-job training, and any other related assistance to help the person achieve their goals in the IWRP.

Six steps to the vocational rehabilitation process in Montana (Client Assistance Program, 1991) include:

1. Application.
2. Diagnostic evaluation to determine eligibility. Evaluation may include documentation of current physical or mental impairment, vocational evaluation to determine potential for future employment, and determination of financial eligibility.
3. Writing the Individual Written Rehabilitation Plan (IWRP).
4. The provision of services according to the IWRP. Possible services include;

vocational counseling and guidance, vocational training, work adjustment training, medical services and treatment, income maintenance, and other services based on individual needs.

5. Job placement.

6. Follow-up and closure.

Vocational rehabilitation counselors serve a key function in the rehabilitation process. Their responsibilities are to assist the vocational rehabilitation (VR) client to develop an IWRP that is "within the client's physical, intellectual, and emotional capacities" (Brodwin & Brodwin, 1995, p. 1). The rehabilitation counselor's primary reference document (Brodwin, Tellez, & Brodwin, 1995) advocates a holistic approach to rehabilitation. The holistic approach recognizes the interdependency of the individual and his or her environment and suggests five categories or areas of interest to be considered when formulating the IWRP: (a) the disability itself, and its functional limitations; (b) psychological and emotional factors; (c) vocational experience; (d) educational background; and (e) social issues.

It is difficult to determine how many clients are being served in the MVR due to the manner in which services and clients are counted. Reports submitted from the Montana DPHHS to the federal Rehabilitation Services Administration are based on calendar year data. A client receiving just one service in January, perhaps to close out a case, is counted just as fully as a client who receives services throughout the year. Each client visit to the vocational rehabilitation counselor's office is counted as a service. MVR administrators report having provided 1,538 client services in "Post Secondary Institution

of Higher Education” in 1997 (RSA-2 Report, 1998).

It is also difficult to get an accurate count of the numbers of adults in Montana’s five colleges of technology attending school through MVR funding. Academic records are protected under the FERPA (Family Educational Rights and Privacy Act) law (U. S. Department of Education, 1973) and are inaccessible to be reviewed and counted. None of the colleges of technology maintains aggregate counts of students funded by MVR. Secondly, client records are confidential within DPHHS and are again inaccessible. The RSA-2 report (1998) appears to be the primary means for closing in on the number of adults attending postsecondary schools under the MVR program.

A possible estimate might be made, however, based on the number of adult vocational rehabilitation learners alleged at the Helena College of Technology (HCT) (Please see Chapter Four, “Methodology,” for how the count was determined). I estimate approximately 12 to 15 percent of the adult vocational rehabilitation learners at HCT are there by reason of public or private vocational rehabilitation programs. Assuming the HCT percentage of adult VR learners to be a somewhat representative figure for adults in vocational schools, then the total number of adults in all colleges of technology can be roughly estimated. In 1996, there were 2,589 full-time equivalency students in all the colleges of technology (Montana University System Enrollment History, 1998). By multiplying the enrollment figure by 12 percent and again by 15 percent, I calculate approximately 310 to 388 adult VR learners are enrolled in the five colleges of technology.

There remains a large discrepancy between the 1,538 cited in the RSA-2 report

and the estimated 350 students in the five colleges of technology. Unfortunately, the 350 VR students figure does not include the seven tribal colleges, three community colleges, six university campuses, two private colleges, or any proprietary postsecondary institutions. For the same reasons previously cited, none of the other schools have accurate counts of their adult VR populations either.

Adult vocational rehabilitation learners are hidden from more prominently displayed figures of special populations. The VR learners are a special population that doesn't quite fit anywhere else. They are not wholly able-bodied due to their physical and mental impairments but neither do they necessarily fit the definitions of handicapped or disabled. Dr. Ravensloot of the Rural Institute for disabilities in Missoula, Montana, claimed in a personal telephone conversation with me (17 September 1997) that the world of impaired individuals in VR programs is divided into three parts; (a) people getting along fine without assistance; (b) those who need occasional assistance with the challenges of daily living; and (c) those who need continual assistance, particularly with problems secondary to their primary difficulties. Adult VR learners attending postsecondary institutions are primarily in the top third of the hierarchy though a few are in the top of the middle third.

The adult VR learners, for the most part, are not distinguishable from the general population. They may limp a little, or sit down and get up gingerly, but otherwise they have accommodated their difficulties. Their limitations, though hard to detect by simply observing the individuals going about their daily living, are very real and often prohibit their enjoyment of normal life's activities with which they have become accustomed.

Generally, the VR learner has a combination of problems which could include chronic pain, personality disorders, adult learning disabilities, criminal behavior, alcoholism other substance abuse, and difficulties associated with dysfunctional family life (James, 1989). Compounding their difficulties is a possible "relationship between the client's previous failed learning experiences and the problem that is preventing vocational success" (p. 27). Professionals who work with VR clients encourage a holistic approach to their rehabilitation due to the myriad interrelated issues the VR client faces (Brodwin & Brodwin, 1995; James, 1989; Materson, 1997).

Possibly because they are in a "hidden" population, I could find no study directly addressing adult VR learners in the top third of Ravensloot's hierarchy. Typical key word searches using "rehabilitation," "rehabilitation" modified with "adult," and "vocational rehabilitation," returned results addressing the medical aspects of rehabilitation, the severely disabled, or handicapped adolescents. Later while exploring the key word "pain" modified by "adult," I found studies of working age adults oriented primarily to workers' compensation insurance and back-to-work issues. None of the studies concerned adult workers returning to postsecondary institutions following major injury.

Transitions

Transitions are a time of personal change, a time of leaving something behind and moving on to a new beginning. The in-between period of time, referred to as the "neutral zone" by Bridges (1980), is a time of emotional withdrawal, of "inattentive activity and ritualized routine" (p. 114). Bridges views transitions as "the natural process of

disorientation and reorientation that marks the turning point of the path of growth ... [and] involves periodic accelerations and transformations" (p. 5).

Gould (1978) links growth in adulthood with difficulties of transition.

... adulthood is not a plateau; rather it is a dynamic and changing time for all of us. As we grow and change, we take steps away from childhood and toward adulthood - steps such as marriage, work, consciously developing a talent or buying a home. With each step, the unfinished business of childhood intrudes, disturbing our emotions and requiring psychological work. With this in mind, adults may now view their disturbed feelings at particular periods as a possible sign of progress, as part of their attempted movement toward a fuller adult life (p. 14).

In their national study of 2,000 Americans 25 years of age and older, Aslanian and Brickell (1980) summarized 18 conclusions:

1. We have indeed become a learning society.
2. We have become a society in which adults learn everywhere.
3. Many adults learn in formal educational institutions.
4. Many adults learn in institutions for which education is not the primary function.
5. There are virtually no kinds of voluntary organizations ... which do not arrange some kind of instruction for their adult members.
6. Some adults take private lessons.
7. Some adults learn completely on their own.
8. Adult learners differ in several respects from nonlearners.
9. Most adults do not learn for the sheer pleasure of learning.
10. Adults learn in order to cope with some change in their lives.
11. Learning can precede, accompany, or follow life transitions.

12. Transitions - and the learning needed to accomplish them - occur unevenly in several areas of adult life.

13. The number of transitions in each life area corresponds exactly to the amount of time adults spend in each life area.

14. Adults who learn because their lives are changing more often learn several things at once, more often learn career skills, and more often learn in formal educational institutions.

15. Every adult who learned because of a transition pointed to a specific event in his or her life that signaled, precipitated, or triggered the transition and thus the learning.

16. Triggering events occur unevenly in the several areas of adult life.

17. The number of triggering events in each life area corresponded closely to the amount of time adults spend in each life area.

18. While the topic an adult chooses to learn is always related to the life transition requiring that learning, the topic is not always related to the event triggering the learning (p. 107).

Conclusions 10 through 18 directly address adults in transition and connect transitions to learning. In response to a triggering event, adults move from one status to another, seeking the benefits of the changed status: a childless woman becomes a mother; a college graduate becomes an accountant. Triggering events precipitate the transition and hence, the learning.

Two authors, Herman and Janoff-Bulman, studied trauma victims. Herman (1997)

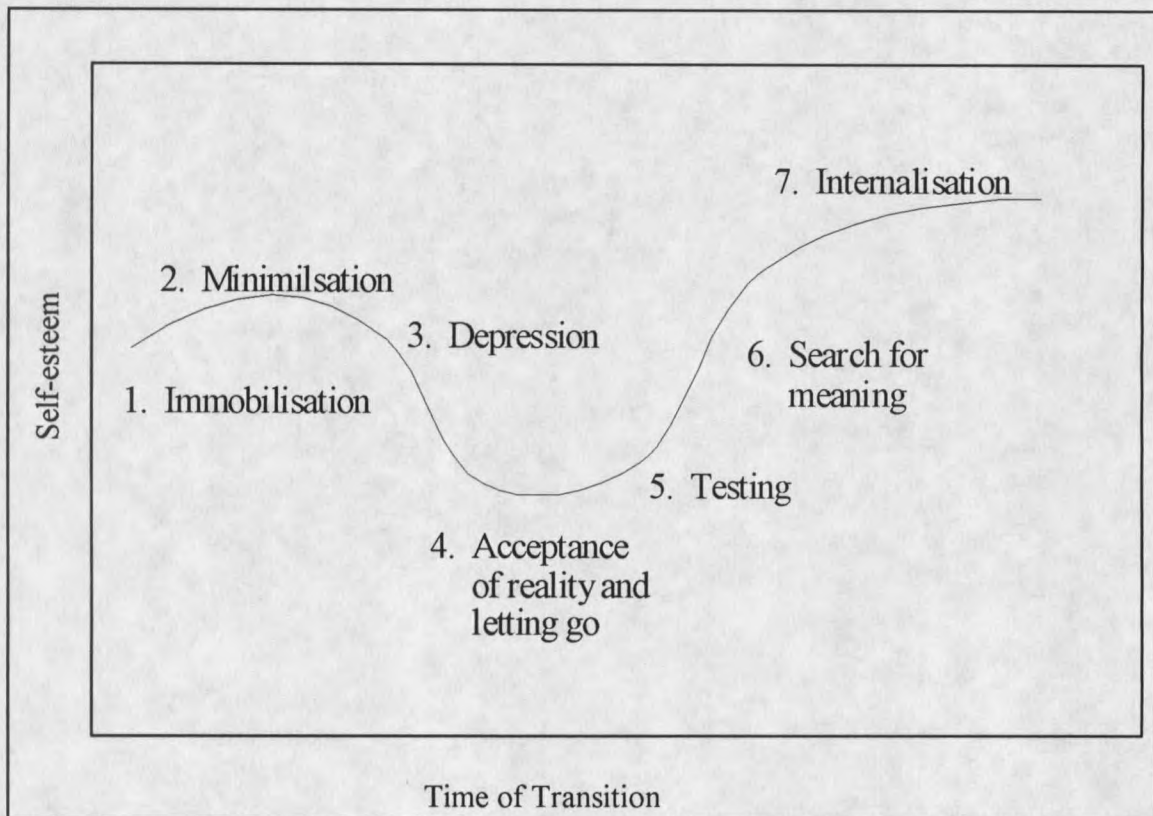
concentrated on the phases of recovery of victims following psychological trauma of domestic abuse, combat, or political terror. She identified three stages of recovery; (a) establishment of safety, (b) remembrance and mourning, and (c) reconnection with ordinary life. Although relevant from the point of view of a traumatic event, her studies of psychological trauma concentrated on human-perpetrated events - terrorism, rape, war - as opposed to the more typical workplace accidents experienced by most of the adult VR learners.

Janoff-Bulman (1994) has conducted research of peoples' reactions to traumatic life events. She suggests there is a common process underlying all reactions involving the shattering of fundamental assumptions about one's life-world. "At the core of our internal world are abstract, generalized views of ourselves and the external world, our broadest schemas ... these are our fundamental assumptions - those that we are least aware of and least likely to challenge" (p. 59). She has found that most victims are unaware of three fundamental assumptions about (a) about themselves (the self is worthy), (b) their world (the world is benevolent), and (c) the relationship between the two (the world is meaningful), until becoming victimized. These deep-seated beliefs originate in infancy and are confirmed and reinforced through caregivers, often resulting in a sense of invulnerability. The psychological shell that protects and cares for us "is fractured and broken by the experience of traumatic life events" (p. 62) and thrusts the person into a new state of vulnerability.

Hopson and Adams (1976) sought to answer the question, "Is there a general model of transition?" They were heavily influenced by findings of three studies, a model of

postgraduate professional development, research on Peace Corps volunteers' reactions to their training, and Kubler-Ross' study of death and dying, and noted similarities among the three studies in diagrams of the transition experience. Their conclusion was that despite whether the change was anticipated or not, "it will trigger a *cycle* of reactions and feelings that is predictable" (p. 9). Their chart is approximated in Figure 1.

Figure 1. Hopson and Adam's "Self-esteem changes during transition" (1976, p. 13)



Beardmore (1995) offers a three-stage model of transition stages showing emotional responses to being faced with catastrophic injury or disease. Beardmore's model shows the three stages of pre-impact, impact, and post-impact, though each stage is

itself composed of sub-stages. The pre-impact phase is a time of trying to make sense of what is happening. This phase is especially applicable in cases of progressively more serious multiple injuries and insidious onset of repetitive injuries, like carpal tunnel syndrome. Beardmore divides the pre-impact phase into prelude and warning sub-stages. The prelude sub-stage "begins with the first indication that something is seriously wrong.... The person may rationalize that the pain is due to a temporary event... the person pays little attention to the symptoms and deals with them by using strategies that have been effective in the past" (p. 108). In the warning sub-stage, the person realizes the condition is serious and that old ways of coping are not effective, paving the way for the impact phase.

The impact phase "... begins when there is a definite diagnosis, or when sudden catastrophic injury occurs.... Situational depression and anxiety are common" (p. 109). One of the two sub-stages, 'shock, "... is more likely to occur in cases of sudden, traumatic onset when the crisis comes without warning ..." (p. 109). Shock may resolve itself into relief that there is a definitive diagnosis, or muted emotional reactions where the victim feels like a detached observer of the situation. The second of the two sub-stages, encounter, is also referred to as the realization stage by Beardmore. The reality of the situation becomes apparent. The person may experience a variety of symptoms not unlike post-traumatic stress disorder; anxiety, depression, panic, disorganization, helplessness, and loss of control. The person may express anger at the injustice of the situation.

The post-impact phase, continues Beardmore, includes the defensive retreat, acknowledgment, and adaptation sub-stages. Defensive retreat is a type of emotional

withdrawal when the situation becomes too intense, too intolerable. It is a means of avoiding reality, an attempt to reduce anxiety. Acknowledgment is a rocky period of adjustment. The person comes to understand their new limitations. It is a time of “psychological reorganization ... and grieving” (p. 110) for what is lost. During adaptation, “the person has worked through the emotional reaction to the disability” (p. 110). Their focus is on abilities, not disabilities.

Beardmore defines coping mechanisms using Moos and Shaeffer (1986) categorization of three strategies: (a) appraisal-focused coping, which is “existentialist in nature in that there is an effort to understand and find meaning in the crisis” (Beardmore, 1995, p. 111); (b) problem-focused coping, which “reflects an effort to deal with the tangible reality of the situation and take active steps to make the situation more tolerable and satisfying” (p. 111); and (c) emotion-focused coping, which “allows one to maintain affective homeostasis with the ultimate goal of achieving a resigned acceptance of the disease or disability” (p. 111). Table 3 compares the three definitions of transition phases.

Table 3. Comparison of Phases of Transitions

Hopson & Adams	Bridges	Beardmore
immobilisation	disengagement	prelude
minimilisation	disidentification	warning
depression	disenchantment	shock
acceptance of reality	disorientation	encounter
testing	neutral zone - surrender	defensive retreat
search for meaning	new beginnings	acknowledgment
internalisation		adaptation

Schlossberg (1984) considers transitions from a generic perspective of continual growth and development among adults. She defines three elements of transition as: (a) the type of transition, whether anticipated, unanticipated, chronic "hassles," and nonevents; (b) its context, the relationship of the person to the transition and the setting in which the transition occurs; and (c) the impact of the transition in terms of the degree to which the transition alters his or her daily life. Schlossberg continues, "We may assume that the more the transition alters the individual's life, the more coping resources it requires, and the longer it will take for the assimilation or adaptation" (p. 52). She divides coping resources into four types, the four S's as she calls them: situation, whether the individual assesses the situation as positive, negative, or indifferent; self, the person's inner strengths for dealing with the transition; supports, both internal and external; and strategies, the robustness of repertoire the person has for dealing with the change.

Oftentimes, transitions in one life area stimulate transitions in other areas (Schlossberg, 1984). Several scales have been developed in attempts to apply numerical ratings to life events; Holmes-Rahe Social Readjustment Scale, PERI Life Events Scale, Life Experiences Survey, and Unpleasant Events Schedule. The scales are self-reporting. An individual selects events applicable to his or her life and adds up the total number of points associated with the marked selections. The theory underlying the scales is that an accumulation of life events produces greater stress on the individual. The greater the individual stress, the more coping mechanisms are needed to handle the stress. According to its authors, the Holmes-Rahe Social Readjustment Scale (Holmes & Rahe, 1967) predicts that people with scores of 300 and higher have an 80 percent chance of illness,

people scoring between 150 and 300 points have a 50-50 chance of a serious health change within two years, and people scoring below 150 have a 1 in 3 chance of serious health change. Much controversy surrounds the use of life event scales but the fact remains, concurrent transitions have an impact on personal health (Schlossberg, 1984).

Adaptive tasks are techniques people employ to deal with a situation. Moos and Shaeffer (1984) have outlined seven adaptive tasks people use when faced with a major health crisis (Beardmore, 1995, p. 114):

1. Dealing with the pain, functional limitations, and other symptoms.
2. Dealing with the hospital environment and special treatment procedures.
3. Developing and maintaining adequate relations with health care staff.
4. Preserving a reasonable emotional balance by managing disturbing feelings aroused by illness and disability.
5. Preserving a satisfactory self-image and maintaining a sense of mastery and competence.
6. Sustaining relationships with family and friends.
7. Preparing for an uncertain future.

I would add to this list an eighth item; dealing with personnel in other systems surrounding the health care system, such as the workers' compensation, insurance, or social assistance systems.

From this review of literature relevant to transitions, I concluded that: (a) transitions are a normal part of adulthood, (b) the process of transition differs by

individual; (c) it occurs in steps or phases; (d) the sequence of the steps or length of time for each step cannot be predicted; (e) the transition is initiated by a trigger event; (f) it is emotional; (g) it requires some sort of coping mechanisms to negotiate successfully, and (h) it often results in a some kind of personal learning. The person completing the transition is somehow changed from the person entering the transition process.

Transformative Learning

Current theories of adult development are commonly grouped into three overarching concepts: (a) sequential patterns or stages of change, (b) life events, and (c) transitions (Merriam & Brockett, 1997). The concept of transitions is increasingly related to concepts of adult development (Merriam & Caffarella, 1991; Kegan, 1994; Tennant & Pogson, 1995). Hobson and Welbourne (1998), however, posit a contextualist concept of adult development emphasizing the continuing, interdependent nature of the relationship of the individual and society. Transformative learning, a theory of fundamental change in the individual learner, is congruent with the concepts of transitions and context.

Transformative learning emphasizes the “mental construction of experience, inner meaning, and reflection” (Merriam & Caffarella, 1998 unpublished). It is based on constructivist assumptions (Cranton, 1994). Mezirow (1991) describes the constructivist assumptions to include “a conviction that meaning exists within ourselves rather than in external forms such as books and that personal meanings that we attribute to our experience are acquired and validated through human interaction and communication” (p. xiv). What we make of the world is a result of our perceptions of our experiences.

“Transformative learning, then, is a process of examining, questioning, validating, and revising these perceptions” (Cranton, 1994, p. 26).

The basic premises underlying transformative learning are not new but Mezirow and Freire have served as its two major proponents. Mezirow’s fully-developed theory of perspective transformation is the most articulated theory of transformative learning to date (Merriam & Caffarella, 1998, unpublished). Transformation theory, first offered by Mezirow (1978) upon publication of his national study of women’s re-entry programs in community colleges, is about personal change. Mezirow found perspective transformation to be the central process whereby the habitual roles and relationships by which the women identified themselves changed to new perspectives. For many the process was difficult and painful. Habitual ways of interacting with the world were tenaciously embraced and reluctantly released. But those who persisted were rewarded by new insights, new understandings, and a redefinition of their roles and relationships.

Experiences are perceived with the tools we’ve accumulated along life’s journey, our personal frames of reference. “We are caught in our own histories,” says Mezirow (1991, p. 1). More recently he adds, “Adults have acquired a coherent body of experience – associations, concepts, values, feelings, conditioned responses – frames of reference that define their life world” (1997, p. 5). Mezirow calls the frames of reference “meaning perspectives,” the perspectives through which we give meaning to our world. “To make meaning means to make sense of an experience ... [to] make an interpretation of it” (Mezirow & Associates, 1990, p. 1). If an encountered experience fits our frame of reference, then we assimilate it and little about us is changed other than we accumulate

additional knowledge. If, however, the new experience has an aspect about it that is troubling, disorienting, or uncomfortable, then a dilemma exists between our perception of the experience and our habitual ways of interacting with the world. We have a choice of confronting the dilemma or ignoring it. Ignoring the problem produces no inner change but confronting the dilemma through reflection or critical reflection offers the opportunity for personal transformation. If we choose to change and the change process is successfully negotiated, then either a meaning scheme has been transformed by reflection or a meaning perspective has been transformed by critical reflection to a more integrative, inclusive frame of reference.

Adult learning is equated with changed meaning perspectives. "Transformative learning is not an add-on. It is the essence of adult education" (Mezirow, 1997, p. 11). Transformative learning is not merely an accumulation of knowledge. "It is a qualitative change in how one views the world" (Hobson & Welbourne, 1998, p. 77). Transformative learning results in a changed perspective or world view which

produces more far-reaching changes in the learners than does learning in general, and ... these changes have a significant impact on the learner's subsequent experiences. In short, transformative learning *shapes* people; they are different afterward, in ways both they and others can recognize (Clark, 1993, p. 47).

A key aspect of Clark's statement is that people who have experienced transformative learning have changed in recognizable ways. Other authors agree that change resulting from transformative learning can be recognized (Blunden, 1997; Brookfield, 1986; Candy, 1991; Cranton, 1994; Daloz, 1986; Kegan, 1994; Rogers,

1961). Cranton (1994) relates autonomy with transformative learning. She tells us that “becoming autonomous is a transformative process, freeing us of unarticulated or distorted meaning perspectives” (p. 60). Blunden (1997) discusses transformations of persons in a vocational context. Candy (1991) offers brief definitions of autonomy from nine theoreticians and authors which reflect the multidimensional dimensions of transformative learning. Cranton (1994) describes several real world examples of transformative learning in action. Daloz (1986) devotes a chapter to discussions and examples of how learning produces changes in learners. Kegan (1994) defines a model of development of maturity. Kitchener and King (1981) share their findings of a seven stage model of reflective judgment.

One of the clearest lists of attributes of a person having experienced personal change is described by the educator/psychologist Rogers (1961). He prefaces the listing of characteristics with, “By significant learning I mean learning which is more than an accumulation of facts. It is learning which makes a difference – in the individual’s behavior, in the course of action he [*sic*] chooses in the future, in his attitudes and in his personality” (p. 280).

1. The person sees himself differently.
2. He accepts himself and his feelings more fully.
3. He becomes more self-confident and self-directing.
4. He becomes more the person he would like to be.
5. He becomes more flexible, less rigid, in his perceptions.
6. He adopts more realistic goals for himself.

7. He behaves in a more mature fashion.
8. He changes his maladjustive behaviors, even such a long established one as chronic alcoholism.
9. He becomes more acceptant of others.
10. He becomes more open to the evidence, both to what is going on outside of himself, and to what is going on inside of himself.
11. He changes in his basic personality characteristics, in constructive ways.

A meaning perspective is a frame of reference, a habitual way of dealing with the world (Cranton, 1994; Mezirow, 1991). It is the filter through which we make meaning of our experience (Merriam & Caffarella, 1998). Mezirow further distinguishes three meaning perspectives: epistemic, sociolinguistic, and psychological. An epistemic meaning perspective relates to knowledge and the use of knowledge. A sociolinguistic meaning perspective has to do with social norms, cultural expectations, socialization, the way language is used, religious beliefs, family background, and interactions with others. Psychological meaning perspectives "pertain to how people see themselves as individuals - their self-concept, needs, inhibitions, anxieties, and personality-based preferences" (Cranton, 1994, p. 29).

A meaning perspective is distorted if there is something about it that reduces our ability to function effectively. A distorted meaning perspective is one that "leads the learner to view reality in a way that arbitrarily limits what is included, impedes differentiation, lacks permeability or openness to other ways of seeing, or does not

facilitate an integration of experience” (Mezirow, 1991, p. 118). Distortions occur in all three meaning perspectives; epistemic, sociolinguistic, and psychological. A distortion can be thought of “as an unquestioned, unexamined, perhaps even unconscious assumption that limits the learner’s openness to change, growth, and personal development” (Cranton, 1994, p. 30).

The following outline lists causes, types or components of distortions in the three meaning perspectives:

1. Epistemic (nature and use of knowledge). Distortions in this meaning perspective are caused when knowledge or beliefs remain unexamined or unquestioned, “particularly when the knowledge is obtained from someone who appears to be an expert (the author of a book or a teacher) or a person in a position of authority (a leader or supervisor)” (Cranton, 1994, p. 32). Components of the epistemic meaning perspective include: (a) reflective judgment, (b) dimensions of cognitive style, (c) scope of awareness, and (d) learning styles.

2. Sociolinguistic (social norms, culture, and language). The sociolinguistic meaning perspective forms “the way we see the world, and the way we interpret our experiences” (p. 34). Distortions in this meaning perspective concern: (a) language, (b) selective perception, (c) level of consciousness, (d) constrained or unconstrained views of humanity, (e) cultural and socioeconomic background, and (f) current society or culture.

3. Psychological (having to do with one’s self concept). Psychological meaning perspectives are primarily formed during childhood. Distorted psychological meaning perspectives often are the result of childhood trauma. Distortions in this meaning

perspective cause us pain because they are inconsistent with our self-concept. These include: (a) personality variables, such as locus of control , (b) psychological types, and (c) self-concept.

Distorted meaning perspectives are typically illuminated through reflection, critical reflection, and critical self reflection. The purpose for reflection is to make explicit the assumptions underlying a belief or judgment, an opinion or attitude. Reflection has to do with asking what and how questions concerning the content and process of a problem or issue. Critical reflection digs a little deeper, stimulated by why questions focused on the premise of the problem or issue. Critical self reflection similarly focuses on the premise of personal assumptions or beliefs rather than of a problem or issue. Transformative learning is a result of all types of reflection but perspective transformation results only from critical reflection on underlying premises.

In his theory of perspective transformation Mezirow (1991) describes a learning process unique to adults. He identifies ten steps or phases in the transition from the old way of perceiving the world to a new way (p. 168).

1. Disorienting dilemma
2. Self-examination with feelings of guilt or shame
3. Critical assessment of epistemic, sociolinguistic, or psychic assumptions
4. Recognizing the process is shared, and relating to others' similar experiences
5. Exploring options for new roles, relationships, and actions
6. Planning a course of action
7. Acquiring knowledge and skills to implement the plan

8. Provisional efforts, trying out new roles
9. Building of competence and self-confidence in new roles
10. Reintegration into one's life and society with a new perspective

The journey of transformation can be psychologically painful (Brookfield, 1987; Cranton, 1994; Mezirow and Associates, 1990). Daloz (1986, 1988) has described associations with students evidencing the difficulties inherent in making personal change.

Courtenay, Merriam and Reeves (1998) identified a series of steps described by people who had learned they were HIV positive. The authors called their steps the "categories of meaning-making process" (p. 69) that HIV positive adults experienced as they attempted to make personal meaning of their situation. The steps include: an initial period of reaction to the diagnosis, a catalytic experience that sets in motion the meaning-making process, and three distinct and interrelated phases of reflection and activity in the transformative process (exploration and experimentation, consolidation of new meaning, and stabilization of the new perspective). They compared and contrasted their three steps with Mezirow's ten phases of perspective transformation and though there was much congruence, they found Mezirow's description of the outcome of a perspective transformation "too limited a characterization of the transformed perspectives of our clients" (p. 81).

Taylor (1997) relates that Mezirow's theory of perspective transformation has been criticized on several grounds; its purported linearity, lack of recognition of other extra-rational ways of knowing, and its emphasis on existentialism without apparent

regard to social processes. Courtney, Merriam & Reeves (1998) cite Mezirow's failure to recognize either the value of support systems or the notion of readiness to learn. Mezirow acknowledges the theory is continuously evolving; he welcomes constructive criticism. He has entered spirited debate in learning journals and invites continued dialogue.

People suffering physical trauma are thrust into confused states of cognitive, affective, and behavioral reactions. Transformative learning is a process of personal change that starts with a disorienting dilemma. There is potential to apply the concepts of transformation theory to vocational rehabilitation learners in their various states of transition.

Pain

Pain is defined as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage (de Jong, 1980).

Chronic pain is separated from acute pain by the following definition; "... as pain that persists a month beyond the usual course of an acute disease or a reasonable time for an injury to heal, or is that associated with a chronic pathological process that causes continuous pain or the pain recurs at intervals for months or years" (Bonica, 1990).

Chronic pain syndrome is further differentiated from chronic pain as a "common, socially-reinforced, partially learned, maladaptive pattern of behavior for dealing with unrelenting pain" (King and Kelleher, 1991). People with chronic pain go about their lives being careful not to further injure themselves and cause further pain but pain is not foremost in their minds as it is with those suffering from chronic pain syndrome. These persons suffer

from the consequences of their pain in virtually every aspect of their lives.

Loesser (1982) offers a conceptual model of chronic pain which includes the four components of (1) nociception, the physical causative factor for the pain; (2) perception of the pain by the individual; (3) the individual's emotional suffering; and (4) the individual's observable actions to the perceived pain.

People who have suffered injuries of such magnitude as to result in an end to their chosen vocations often experience continuing, chronic pain. Back injuries and resulting low back pain comprise the majority of work-related injuries, followed by repetitive motion injuries such as carpal tunnel syndrome in wrists or ankles, and injuries to arms and shoulders. People with chronic pain are frequently depressed and may exhibit other emotions such as guilt, anger, hopelessness and helplessness, and anxiety (King & Kelleher, 1991).

Critically important is Bandura's concept of self-efficacy, "the belief that individuals have the ability to succeed and to control the future by the choices they make" (Beardmore, 1995, p. 114). Associated with self-efficacy regarding pain is Lewin's theory of locus of control, whether the individual possesses the internal means to control the pain or whether the control is external to the individual (Brodwin & Brodwin, 1995). Materson (1997) refers to the "totality of the pain syndrome complex," stating that, "Psychosocial problems which could be suppressed or managed prior to pain syndrome onset become terrible barriers to progress unless specifically identified as problems and specifically worked out" (p. 22).

Traumatic injury produces physical pain. The pain begins in an acute stage and

may end there or, if long lasting, become chronic pain. Chronic pain is constant but does not consume the individual's attention all the time. Chronic pain remains in the background and surfaces to awareness every once in a while. Chronic pain is manageable by medication or individual stoicism. Unmanageable chronic pain turns into chronic pain syndrome. An individual with chronic pain syndrome can think of nothing else but the pain. The first early morning thought is, "How much will I hurt today?" Pain is in control.

The literature review on pain has shown that pain in any of its forms affects psychological health and social interactions. Pain managed by medication adds a physiological component and further compounds the individual's difficulties. Pain and pain medications may affect an individual's ability to progress through the stages of transformative learning.

Summary

I have briefly developed four themes - vocational rehabilitation, transitions, transformative learning, and pain - to show their relevance to this study concerning the meaning adult vocational rehabilitation learners make of their experience. The four themes are tied together by change and meaning: (a) adults in vocational rehabilitation programs must deal with major life transitions in several life areas; (b) adults undergoing a transition process emerge somehow changed; (c) transformative learning is a type of transitional process which, when negotiated successfully, results in a more inclusive, permeable, discriminating world view; and (d) pain - perhaps as a motivator, perhaps as an inhibitor - pervades the transition experience of a vocational rehabilitation client.

Taylor has followed the research on transformative learning and periodically publishes reports summarizing research efforts to date. In his article appearing in *Adult Education Quarterly*, Taylor (1997) reported finding 39 relevant research reports in his search of on-line databases covering the previous 17 years. None of the 39 studies involves adult vocational rehabilitation learners, although 13 studies explored the relationship of lifestyle and career changes among adults to transformative learning, and two looked at transformative learning and personal illness. Major themes of the 13 studies on lifestyle and career changes included kidney transplant recipients, parent education, elementary school principals, nutritional beliefs and practices, job loss, nurses returning to school, displaced homemakers, rural mid-life college students, ethnically diverse working class women, Jewish women, female smokers and non-smokers, students in higher education, and higher education and returning working class males. The two studies of illness focused on withdrawal experiences and persons diagnosed as HIV positive.

The purposes of the three studies which appeared relevant to my own were; (a) to investigate the nature of job loss and related experiences of change and development, (b) to explore the effects of higher education on returning working class adult male students at a community college, and (c) to understand how meaning is constructed in the lives of those diagnosed as HIV positive. I could only find a report of the third study. I could not find the first two reports in UMI Dissertation Abstracts, ERIC, or CARL UnCover.

All studies reviewed by Taylor (1997) employed naturalistic research designs (qualitative, phenomenological) most relying on "semi-structured interviews of participants who reflected on their transformative learning experiences" (p. 37). Taylor

wages general criticism against the lack of publication of empirical studies and a lack of critique of Mezirow's theory, resulting in "a reification of transformative learning as we presently know it" (p. 37). He further states that findings "point to the need for a more holistic and contextually grounded view of transformative learning in adulthood" (p. 49). By holistic, Taylor suggests research efforts emphasize the effects of affective learning, nonconscious learning, relationships, the collective unconscious, and the role of context on transformative learning.

Conclusion

Transformative learning is a process of transition within the context of individual life-worlds. It begins with something gone wrong and proceeds through a series of stages until the individual believes things are right once again. Adult vocational rehabilitation learners have had a serious incident that precipitated their entry into a transition process of transformative learning. They have brought with them the accumulated baggage of their life's journey to this point in time, baggage consisting of a complex system of mental filters and lenses they have created to deal with their life-worlds. Each one of them has embarked on a personal journey leading to graduation from the Helena College of Technology and an uncertain future beyond. They have many issues to confront, barriers to surmount, and hurdles to leap as they wend their way on a path from their pasts to uncertain futures.

CHAPTER THREE

CONCEPTUAL FRAMEWORK

A phenomenon can be some physical reality perceived by the senses. One sees a tree, hears a train's whistle, feels a cat's fur, smells potpourri, or tastes peppermint candy. A phenomenon can also belong to the mental realm, like fear, love, or anger. "It means the presence of any given precisely as it is given or experienced" (Giorgi, 1997, p. 237). A phenomenon is experienced in our consciousness; we are aware of the phenomenon as we experience it. The act of experiencing is itself a phenomenon. Phenomenology is the study of the experience of being aware of something.

Edmund Husserl, a student of Franz Brentano, is credited with developing the phenomenological school of philosophy at the beginning of the 20th century (Britannica On-Line, 1998). Immanuel Kant, however, laid the foundation for Husserl by making a distinction between the world-as-it-is, the *noumenal* world, and the world-as-it-is experienced by humans, the *phenomenal* world (Carson, undated). The main objective of phenomenology then, is "to take a fresh approach to a concretely experienced phenomena through the direct investigation of the data of the consciousness - without theories about their causal explanation and as free as possible from unexamined presuppositions - and to attempt to describe them as faithfully as possible" (Britannica On-Line, 1998).

The world we experience is the phenomenal world. Husserl saw a single

relationship between the physical phenomenal world and human consciousness. To be aware is to be aware of something because the something is held in consciousness. Whether the object of one's awareness actually exists "makes no difference at all" (Moustakas, 1994, p. 50). A phenomenon can be a physical object of the real world or a non-physical object of the mental realm. Phenomenology, therefore, includes conscious experiences of objects that are not concrete, like the concepts of time or freedom (Giorgi, 1997).

Concepts

Basic concepts associated with phenomenology are consciousness, intentionality, experience and presence. Consciousness, as opposed to unconsciousness, is to be aware. It is the lived experience that belongs to a single person (Giorgi, 1997). "Consciousness is always directed towards something. It is always conscious of something" (Collins, 1995, p. 263). Intentionality links the consciousness and the object under consideration. When I think of something, I am aware – conscious – that I am thinking *of* something and of the feelings or emotions that are evoked in me. "An intentional object, then, is the object or event singled out by an individual for cognitive attention" (p. 263). When I hear Beethoven's Moonlight Sonata, a pleasurable feeling sweeps over me. I am conscious of the great musical piece as I think of it; my thoughts and the music itself are connected through my feelings, emotions, and attitude. How I feel about the piece gives it significance important only to me. This becomes the meaning of my experience.

"Intentionality, then, refers us to the purposive experiencing of objects and events in which

individuals bestow meaning on their activities” (p. 264).

Experience and presences, according to Husserl, follow Bretano’s notion of physical objects and mental objects. Experience is the perception of real objects of the phenomenal world, like cars, trees or rocks. Experience is different from presences that may not be physical, like the concepts of time, freedom or numbers (Giorgi, 1997; Moustakas, 1994). Both experiences and presences are treated as phenomena and can thus be presented to the consciousness for consideration. I can think of a spider. I can think of what the experience of thinking about a spider means to me - the anxiety, the revulsion, the fear - as I allow the thoughts of the spider into my consciousness. That presentation to consciousness of either the experience of a physical object or the presence of a non-physical object is referred to as intuition by Husserl (Giorgi, 1997; Moustakas, 1994).

Husserl also coined the term *lebenswelt* (life-world) (Kenny, 1997). He described our life-world as a commonsense world formed by our social interactions and “endowed with the ‘meanings’ that inhabit our communicative acts” (p. 229). Phenomenology, then, is used “to describe the nature of an individual’s life-world structure in the form of meaning” (Peters, 1990, p. 315). It was Husserl’s intent that phenomenology “awaken us to the *lebenswelt*” (Kenny, 1997, p. 231).

Processes

Steps common to the process of all qualitative studies include: collect the data, read the data, break it into parts, organize the parts and express them from a disciplinary perspective, synthesize and summarize the results (Giorgi, 1997). Giorgi’s five steps

provide a framework within which to compare and contrast alternative approaches to phenomenological investigations.

Four current authors list the major steps of their methods of phenomenological inquiry.

1. Moustakas (1994): practice epoche; conduct phenomenological reduction; bracket; perform horizontalization; cluster into themes; describe; imagine variations to find structures – essences; and synthesize meanings and essences.

2. Spiegelberg (1965): have an intuitive grasp of phenomenology; investigate instances for essence; apprehend relationships; find how phenomena came into consciousness' bracket beliefs; interpret meaning of the phenomena to those who experienced it.

3. Giorgi (1997): do phenomenological reduction (bracket own beliefs, accept phenomena as given); describe; search for essences by imagining variations.

4. Creswell (1998): understand philosophical perspectives of phenomenology; practice epoche; write questions; collect data; analyze data (search for horizontalizations, make clusters, textural descriptions, structural description); write report.

Each author offers a slightly different description of the process for phenomenological inquiry, but four commonalities underlie their processes: epoche, bracketing, imaginative variation, and search for essences. Epoche is the process of suspending or ridding oneself of preconceived beliefs or judgments. It is an effort to cleanse the mind so as to perceive something into consciousness freshly, naively. We “invalidate, inhibit, and disqualify all commitments with reference to previous knowledge

and experience” (Moustakas, 1994, p. 85). When a respondent relates to me his or her personal experiences with pain and powerful medication, I must, as a phenomenological researcher, suspend thoughts of my own experiences with pain and drugs – whether personal recollections, memories of vocational rehabilitation learners in my classes, or thoughts of our son – so I can accept the respondent’s narration as it is given. My focus is on the respondent’s experience, not mine. I neither filter nor discard as irrelevant the meaning shared with me. I do not judge or weigh the respondent’s experience against my own. I accept it as it is presented to me, without alteration.

Bracketing follows closely on the heels of epoche. As I become aware of my own judgments and beliefs, my own past experiences, I set them aside so as to focus more intently on the subject and its description. I put them on the shelf, so to speak. One “puts aside” or renders “non-influential” all past knowledge (Giorgi, 1997, p. 240). There is disagreement whether one can truly bracket out a personal experience, particularly if that experience was intense. I do not believe I truly remove a previous experience from my consciousness, especially if a respondent is sharing with me experiences with which I can relate. But I can know when my own experience is creeping back into awareness, identify that fact, and park it to the side so I can continue listening without judgment.

Imaginative variation is a method of considering an object from many different perspectives. The purpose for imaginative variation is to discover basic structures of an object that do not change, regardless of the perspective from which they are considered. It is a process of “awakening possibilities ... of multiplying possibilities ... so one becomes aware of those features that cannot be removed and thus what is essential for the object to

be given to consciousness” (Giorgi, 1997, p. 243). Those structures that remain form the structural bases for the essences that describe the object.

The essence of an object, whether concrete (like a characteristic) or nonphysical (like personality), is that which if it were removed, the object would no longer be what it is. “[It] is the most invariant meaning for a context” (Giorgi, 1997, p. 242). As one imagines variations of a phenomenon, the aspects that remain through all the different possibilities – the structure that endures – is an essence.

My approach to this phenomenological investigation was heavily influenced by Moustakas (1994) and Giorgi (1997). Much of the terminology is taken from Moustakas, but I found his approach to phenomenological reduction too mechanical. His bottom-up methods begin with (a) a search for meaning units from the interview transcripts, which are grouped to (b) form clusters of meaning units, which (c) provide texture for individual textural descriptions, followed by (d) individual structural descriptions, which are synthesized into a (e) composite textural description, from which the (f) composite structural description is developed to ultimately culminate in (g) definition of overarching themes or essences. Instead, I found the actual process in action to be a combination of bottom-up and top-down approaches. As data were extracted from the transcripts, I formed ideas for the meaning units. The farther along I got in the process, the more I developed overarching themes and looked for the data and meaning units to support the themes. The process moved back and forth from building up from the data at the bottom while maintaining cognizance of the slowly emerging themes developing at the top.

“...researchers are expected to develop plans of study especially suited to

understanding the particular experiential phenomenon that is the direct object of their study" (Polkinghorne, 1989, p. 44). The details of my methodology are explained in Chapter Four, Methodology.

Conclusion

Phenomenological studies are challenging in two respects; first, from the design and conduct of the study itself, and second, from the practice of methods underlying the phenomenological approach. Creswell (1998) cites the following reasons a phenomenological study may prove to be challenging:

The researcher requires a solid grounding in the philosophical precepts of phenomenology; the participants in the study need to be carefully chosen to be individuals who have experienced the phenomenon; bracketing personal experiences by the researcher may be difficult; and the researcher needs to decide how and in what way his or her personal experiences will be introduced into the study (p. 55).

Moustakas (1994) describes the potential difficulties endemic to the human researcher:

The challenge facing the human science researcher is to describe things in themselves, to permit what is before one to enter consciousness and be understood in its meanings and essences in the light of intuition and self-reflection. The process involves a blending of what is really present with what is imagined as present from the vantage point of possible meanings; thus a unity of the real and ideal (p. 27).

The social and psychological sciences employ phenomenology from a group or individual perspective, respectively (Creswell, 1998). Whether singly or in groups, the phenomenological process is especially suited to understanding the experiences of

individuals going about their daily lives. The "... central concern of phenomenology is about meaning" (Collins, 1995, p. 258). This study is about the meaning the adult vocational rehabilitation learners construct of their experiences while at school. It is a study of their life-worlds. A phenomenological investigation into their everyday lives is the best means for understanding their experiences from their points of view.

Phenomenological inquiry, rather than attempting to remove the researcher from the study, wholly recognizes and embraces the researcher as a living, thinking, feeling entity who brings to the study his or her unique background, skills, and experiences. The researcher's presence is viewed as a strength, not a weakness.

CHAPTER FOUR

METHODOLOGY

Merriam & Simpson (1995) describe three purposes of qualitative research; (a) to seek an understanding of how people make sense out of their lives, (b) to “delineate the process (rather than the outcome or product) of meaning-making, and (c) to describe how people interpret what they experience” (p. 98). There are several traditions or approaches to qualitative inquiry; ethnography, case study, biography, phenomenology, and grounded theory are the more well-known types (Creswell, 1998; Merriam, 1998). Both authors agree phenomenology is the tradition of choice for investigations seeking to understand the meaning of an experience for its participants .

In phenomenological investigations, the long interview is the primary means for gathering data describing what an experience means to the people who experienced it (Creswell, 1998; Moustakas, 1994). Patton explains (1990):

We interview people to find out from them those things we cannot directly observe We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of the observer. We cannot observe how people have organized the world and their meanings they attach to what goes on in the world. We have to ask people questions about those things. The purpose of interviewing, then, is to allow us to enter into the other person's perspective (p. 196).

My study of the meaning of personal experiences of adult vocational rehabilitation

learners as a context for transformative learning had three major phases: (a) preparing to conduct the study; (b) collecting the data; and (c) organizing, analyzing, and synthesizing the data. The identities of adult students attending the Helena College of Technology (the College) through state or federal vocational rehabilitation funding was unknown. Thus, the important first step involved identifying the students, soliciting their participation, and selecting the actual research respondents.

Preparing to Conduct the Study

Academic records are protected by the Family Educational Rights and Privacy Act (FERPA) (U. S. Department of Education, 1973), as amended. Specific data items, such as student's name, program of study, and dates of attendance, upon being declared directory information may be publicly disclosed, but all other information maintained by the educational institution is confidential and private. At the Helena College of Technology, there is no manually-prepared or computerized database report identifying the vocational rehabilitation population of students, nor were there any direct means for obtaining the names of students attending the College through the state and federal vocational rehabilitation program. I had to devise indirect means.

The College's budget officer maintains a list of funding streams for all students receiving state, federal, and other special sources of grant or loan monies. The federal vocational rehabilitation program is administered through the Montana State Department of Public Health and Human Services' (DPHHS) Office of Vocational Rehabilitation Services. At my request, the College's budget officer created a confidential list of names

of 61 students receiving funds through DPHHS and provided that list to the Assistant Dean for Student Services. A cover letter signed by the Assistant Dean for Student Services (Appendix A) and brief survey form (Appendix B) were sent to all 61 students. The purpose for the brief survey form was to collect six items of data to serve as the basis for selection criteria. The seven data items included; name, age, program of study, semester of school, gender, highest grade completed, and reason for participating in the Montana Vocational Rehabilitation program. The form was designed to be attractive, colorful, easy to complete and return. The list of names remained under the control of student services staff and was never disclosed to me. In this manner, the population of adult vocational rehabilitation learners was reached while maintaining their confidentiality and meeting the spirit and intent of the FERPA law. At the same time the College administrators were kept informed of the study and insured integrity of the system of privacy and protection of student records for which they have legal responsibility.

Of the 61 current students identified as probable participants in the state and federal vocational rehabilitation program, 35 (57 percent) returned their surveys, and 31 (88 percent of the returned surveys) volunteered for in-depth interviews. Three possible explanations for surveys not being returned might include: (a) students identified in the College financial records as receiving funds from DPHHS are participating in another social services program separate from vocational rehabilitation; (b) a lack of desire to participate in a research project; or (c) attention to other life priorities precluded participation in the project.

Collecting the Data

There were four primary sources of data in the study: (a) limited data from the brief survey forms returned by the 35 adult VR learners; (b) rich verbal data from the in-depth, semi-structured interviews of all fifteen respondents; (c) additional verbal data from two follow-on focus group sessions; and (d) written data from respondent comments on returned reduced transcripts I had sent to them for their feedback. This section discusses how the data were collected from each of the four sources.

Brief Survey Forms

Thirty-five forms were returned. Four individuals returned basic data but did not include their names. I thus had a working base of 31 individuals who volunteered to participate in the study. Twelve volunteers were women, nineteen were men. Their ages ranged from 24 to 54 years with an average of 37.5 years. Most volunteers came from the Business Department; 15 from the computer technology program and five from office technology. Eleven volunteers were in other programs. The majority of volunteers, 21 of the 31, were in their second or fourth semester of school. That was appropriate as I conducted my study in the spring semester and most students enrolled in the fall. Twenty-three volunteers had earned their high school or general equivalency diplomas, four had some college, and three individuals had received undergraduate degrees. Twenty one volunteers received vocational rehabilitation funds due to injury whereas ten participated in the MVR program for reasons associated with disease or mental problems.

The purpose for this phenomenological study was to describe what it means to be an adult vocational rehabilitation learner at the Helena College of Technology and to identify transformative learning experiences. The 31 returned surveys provided me the initial base of individuals interested in participating in the research project. The next step involved selecting research participants. Creswell recommends interviewing "up to 10 respondents" (1998, p. 113) for a phenomenological study. Lincoln and Guba (1985) recommend sampling until a point of saturation or redundancy is reached. Merriam recommends "an adequate number of participants ... to answer the question posed at the beginning of the study (1998, p. 64) be selected. My approach was to develop selection criteria to refine the research population to fit within my areas of interest, VR students enrolled in the computer technology program who are there by reason of injury. The selection criteria reduced the population of research participants from the 31 survey respondents to the 11 matching my selection criteria.

Many graduates of the computer technology program remain in the Helena area upon attaining their degrees. Four graduates in particular who had attended school under the auspices of the state and federal vocational rehabilitation program had graduated from the program. I knew them as adult learners several years ago and remembered their stories. One graduate had suffered particularly catastrophic injuries. Another graduate had a very tough time adjusting to his injury and appeared to have difficulties staying on task in his classes. Two graduates had done exceptionally well in our computer program and had set the standard for entry pay in their new jobs following school. All four graduates were articulate and willing to share their stories, so I purposely asked them to participate

in the study along with the eleven current students already identified. All four – all males – replied affirmatively; their inclusion brought the total number of research participants to fifteen. Table 4 shows the basic characteristics of the 15 research volunteers.

Table 4. Basic Characteristics of Research Participants

NAMES	AGE	GENDER	FIRST YEAR OF SCHOOL (Current Semester)	HIGHEST GRADE COMPLETED
Augie	38	Male	First	Trade School
Barry	47	Male	Second	2 Years College
Bruce	36	Male	Second	GED
Dan	34	Male	Second	GED
Mark	45	Male	Second	B.A.
Roger	24	Male	Second	GED
NAMES	AGE	GENDER	SECOND YEAR OF SCHOOL (Current Semester)	HIGHEST GRADE COMPLETED
Elliot	34	Male	Fourth	High School
Ken	38	Male	Fourth	High School
Mary	47	Female	Fourth	A.A.
Paul	24	Male	Fourth	High School
Ted	46	Male	Fourth	B.S.
NAMES	AGE	GENDER	GRADUATES	HIGHEST GRADE COMPLETED
Daryl	37	Male	Graduate	A.A.
Dave	48	Male	Graduate	A.A.
Matt	40	Male	Graduate	3 Years College
Melvin	38	Male	Graduate	A.A.

Two items in table 4 need clarification. First, the number of VR learners reported in their second semester is misleading: two individuals attended school a second semester though each had earned less than 18 credits, making them technically still first semester students. Second, the gender difference is overwhelmingly tilted towards males. A review of the original 31 survey respondents shows 12 females and 19 males. Eight of the twelve female students were enrolled in other programs, leaving three female students enrolled in the computer technology program. Two of the remaining three female students were MVR clients due to disease, leaving the one remaining female VR learner in the computer technology program due to injury.

Interviews

I developed the interview questions to elicit participant thoughts and feelings from two perspectives: (a) first, of their experiences as workers who had suffered career-ending injuries, had received services and funding from the state and federal vocational rehabilitation program, and had attended the Helena College of Technology; and (b) second, of their experiences related to concepts and processes of transformative learning. A structured, standardized approach may constrain and limit the naturalness and relevance of respondent answers on one hand, but on the other hand the informal conversational interview may not elicit the desired information (Patton, 1990). Open-ended, less structured interview questions allowed the respondents latitude in expressing their unique views of their experiences (Creswell, 1998; Merriam, 1998). I combined two approaches by creating an interview guide that cued me to ask the same questions of all respondents

but permitted me the freedom to probe and explore opportune subjects or follow new lines of inquiry tailored to the individual respondent (Patton, 1990).

Ideas for the 15 interview questions came primarily from the literature on transitions and transformative learning. The interview questions were reviewed several times by Dr. Patricia Cranton, expert author in the field of transformative learning. I made modifications to some questions, added new questions and discarded redundant questions. Once I was satisfied with the interview questions, I conducted five pilot interviews involving one individual I thought would provide me honest feedback plus four other vocational rehabilitation students who had returned the initial brief surveys but were not included in the final selection of research participants. Based on their feedback to me, I reworded some questions to make them less ambiguous and more focused toward my research topic. The final interview guide is included at Appendix C.

Fourteen of the fifteen interviews were recorded using a standard hand-held audio tape recorder with researcher field notes augmenting the recordings. One respondent was uncomfortable being recorded so I manually documented his comments through only extensive field notes. All fifteen respondents signed consent forms explaining the purpose for the research study and, more importantly, defining their rights as research participants (Appendix D).

The process for all fifteen interviews was similar. Times for the interviews ranged from a low of about 45 minutes to the longest of just over two hours, averaging approximately an hour and a half each. All interviews took place at a time of the participants' choosing, generally between 9 a.m. and 2 p.m.. Two occurred in the evening

hours. All but one of the interviews were conducted at the Helena College of Technology campus in either the student center or an unused classroom during the week of semester spring break. We were quite alone, except for one respondent's wife who joined us for a few minutes midway through the interview. One interview session was held at the respondent's home, in his basement home office. A previous relationship existed between me and eleven of the research respondents: nine were students in at least one of my computer classes; I had played an instrumental role in encouraging one individual to enter school; and one person reported to me during the interview that his wife had taken one of my classes several years ago.

The interview meetings began with informal conversation to help relax the respondents, and progressed to reviewing the consent form together. As the respondent read the consent form, I openly withdrew the tape recorder from my interview kit and turned it on. I asked the respondent to say "Hi" to the tape recorder and asked whether there was any objection to the interview being recorded. I placed the interview guide on the table in front of us in clear view of the respondent and made notes directly on the guide during the interview. The respondent was given a sheet of paper with a generic time line printed near the top (Appendix E). I encouraged the respondent to draw or scribble on the paper as another technique to help reduce anxiety. At the close of the interview, I left a leave behind paper (Appendix F) for each respondent which included various means for contacting me as well as names and telephone numbers of counseling and mental health agencies in the Helena area. I left behind the list of agencies in the Helena area in case the in-depth interview caused unresolved emotional difficulties. It provided the respondents

with an initial contact point.

I transcribed interview tapes using personal computer word processing software and stored the transcripts in files on my hard drive. I made back up copies of the files on a diskette which I kept in my home desk drawer. I did not transcribe 100 percent of the audio taped conversations: I omitted informal chatter that in my judgment had no relevance to the study at all. One example of chatter I omitted was a detailed narrative of an incident when the respondent discovered his wife in bed with another man. In another transcript, I omitted the respondent's lengthy narrative describing how his computer was connected to his workplace computer system. In all cases I inserted a parenthetical summary of the omitted narrative. Respondent names in the transcripts were changed to pseudonyms to help protect them from inadvertent disclosure of their identities. I coded each question to identify the respondent, the transcript version, and the question number. For example, "KG-1-8" would identify me as the respondent, first transcript and the eighth question. As a final step in the transcription process, I used the word processor's line numbering capability to number all but blank lines in the verbatim transcript. So continuing with the KG-1-8 example, my transcribed response to question eight might require 12 lines in the transcript numbered 234 through 245.

I created one document containing all fifteen transcribed interviews using the word processor's copy and paste features. I deleted my questions and follow up probes so that what remained was participant responses. With line spacing set to line and a half, the document grew to 166 pages. This one lengthy document contained the raw data for the data reduction and analysis to follow.

A partner in a Helena company specializing in customized training and consulting services for adults in the workplace agreed to serve as an outside consultant to audit the data collection efforts and verify integrity of the process. The consultant randomly selected four of the fifteen personal interview audio tapes and, while listening to the recorded tapes and simultaneously reading the printed transcript, verified the accuracy of the randomly selected verbatim transcriptions.

I shared some transcripts with the expert author in the field of transformative learning, some with members of my doctoral committee, and four with the outside consultant from the training and consulting firm. I solicited their observations and comments to gain other ideas from points of view different from my own. As I discuss at the end of this chapter, the use of external auditors and peer reviewers was one of my techniques for increasing verification of this qualitative study.

Focus Group Sessions

After I had conducted and transcribed all interviews, I scheduled two focus group sessions. I believed the focus group sessions were important for three reasons: one, to allow the research participants an opportunity to provide further data or to clarify anything they might have said in their previous interviews; two, for the participants to meet other students also in the vocational rehabilitation program and to realize they are not alone; and three, to offer a catharsis or release from any possible tension created as a result of their participation in the study. I talked with all fifteen respondents to solicit their interest and scheduled them for one or the other of the two focus group sessions. Within four days of

the scheduled focus group meetings, I sent written reminders to all respondents which included the four major questions to be asked at the focus group sessions. The reminders with the included questions allowed participants several days to think about their coming participation ahead of the focus group sessions if they chose to do so.

During the focus group session, I prominently displayed each of the four pre-announced questions and asked the attendees to offer ideas and talk aloud among themselves about the questions. As they talked, I wrote their comments on large sheets of butcher paper in front of the group and offered little personal commentary. Intervention was limited to clarifying what someone had said. I later transcribed their comments from the large poster paper using a computer word processing program similar to the process described above for individual interviews.

Neither of the two focus group sessions was well attended: only half of the research volunteers participated. However, the eight participants who did attend one or the other of the two sessions were quite vocal and conducted lively discussions. Although they did not add new data to the study, they confirmed earlier contributions. Perhaps more important, however, they met other VR learners and learned they were not alone in the process as MVR clients. Two possible reasons for the poor attendance were: (a) poor timing on my part, by scheduling the sessions near the end of the semester; and (b) the VR learner's reluctance to become exposed or known to others as a MVR client. Three research respondents later contacted me and apologized for not participating in a focus group session; two had medical appointments and the other forgot.

Reduced Transcripts

The intent for reducing the original interview transcripts was to solicit respondent member checks of the material I would use for the remainder of the study. I reduced the interview transcripts by omitting narrative not relevant to the study, explained previously. I created a reduced transcript for each research participant. Each of the 15 reduced transcripts was returned to the respective research participant, along with a letter (Appendix G) and a stamped, self-addressed, return envelope. In the letter, I asked the respondent to review the transcript and make any changes necessary to insure the narrative accurately depicted the respondent's intended meaning of his or her experience.

Of the fifteen transcripts sent to respondents, eight were returned. Of those eight returned transcripts, four respondents had no changes and two had very minor corrections (one changed a date from 1993 to 1988 and the other changed the phrase "calmed up" to "calmed down" and removed one sentence). Two respondents made more significant changes to their reduced transcripts. One of the two respondents changed "a lot of fist fights" to "a few fist fights," "I'm real stubborn" to "I can be real stubborn," or "I like to be in control" to "I like to be in control of my thinking." He also corrected "psychiatrist" to "psychologist." The second of the two respondents made changes in fact. In a quotation taking directly from his verbatim transcript, he had said, "Cowboy, Scuba diver, whatever," but he changed that to "Packer, firefighter, cabinetmaker, whatever." Where he had originally said of the work-hardening program, "It was really stupid," he changed it to now read, "It was really a waste of time and money." In his responses about reflecting he added a whole new sentence; "Didn't know how to use my past and gifts in a positive

manner.” And he added a closing thought: “I know where I want to be and what’s important in life. And *life* is the key.” I incorporated all received changes, corrections, or updates into the reduced transcripts and the original verbatim transcripts.

The reduced transcripts did not work as well as I would have liked. I had hoped the intervening time between the interviews and their receiving the reduced transcripts would have resulted in more feedback. There was probably one main reason the reduced transcripts did not work effectively. The reduced transcripts were returned to the respondents in their second-to-last week of school. Their attention was focused on preparing for final examinations and ending the school year. I should have returned the reduced transcripts for respondent member checks a week or two earlier.

Organizing, Analyzing, and Synthesizing the Data

Data consisted of the returned brief survey forms, fifteen verbatim interview transcripts, two transcripts of the focus group sessions, and the returned reduced transcripts. I constantly revisited my basic research questions, “What was the meaning of the respondent’s vocational rehabilitation experience?” and “Can transformative learning be identified?” I looked for personal meaning of the VR experience as a first step followed by searching for evidence of transformative learning experiences as the second major step.

As I explained in Chapter Three, Moustakas (1994) outlines a detailed, mechanical process for phenomenological investigation consisting of the following prescribed steps:

1. Epoche.
2. Phenomenological reduction.

- a. bracket personal biases and preconceived ideas to better focus on the topic
 - b. horizontalization
 - c. cluster horizons into themes
 - d. organize horizons and themes into coherent textural descriptions
3. Imaginative variation.
 4. Synthesis.

Moustakas advocates following the above steps for each and every interview transcript. Once individual descriptions are complete, a final collective description of the experience is intuitively created. A variation of this technique involves the researcher's own experiences along with the records of experiences of the research participants.

Giorgi (1997) offers a less detailed, less structured process which also arrives at a final cohesive description of the experience under investigation. The phenomenological process I used was a combination of the two approaches. I did not create structural descriptions of each of the fifteen interview transcripts. I followed the Moustakas process through step 2c for each transcript, created a modified textural description (2d), and continued to steps 3 and 4, imaginative variation and synthesis.

Phenomenological studies approach inquiry in two ways; descriptive and interpretive (Giorgi, 1992). The descriptive approach seeks to describe the phenomenon under investigation "precisely as it presents itself ... neither adding nor subtracting from it" (p. 121). Interpretation, on the other hand, seeks to develop a "contingent line of meaning attributes to account for the phenomenon" (p. 122). These differences manifest themselves

more fully at the level of finding essences through imaginative variation. The descriptive investigation results in an articulation of the unified meaning of the imagined variations, called the structural description. The interpretive investigation “emphasizes the diversity” of the variations and “is reluctant to replace its richness” (p. 122) with a description of the unified meaning. In this study, I used a descriptive approach to finding the meaning of the VR experience and an interpretive approach to understand the transformation experiences.

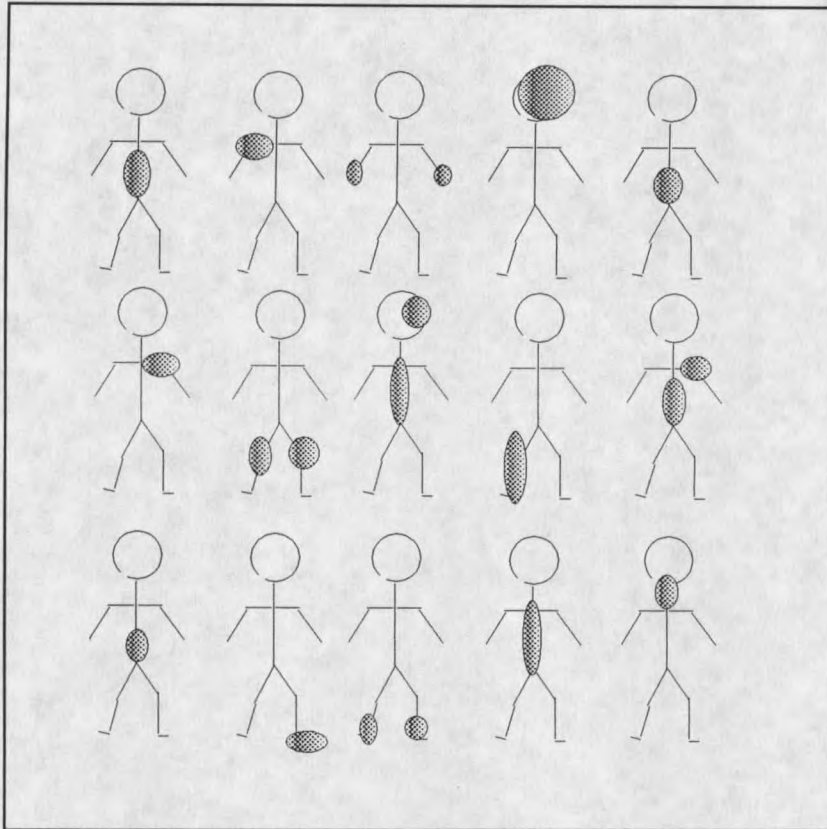
Meaning of the VR Experience

The desired outcome of this portion of the inquiry is a structural description of the essences of the VR experience. I looked for meaning of the VR experience in several ways. First, I created a huge matrix using pages of large butcher chart paper scotch-taped together. Down the left side of the matrix I wrote themes that emerged out of the reading of the transcripts and across the top of the paper, I wrote the codes identifying the first four transcripts I reviewed. In the matrix proper I penciled in statements directly out of the transcripts for each respondent that supported the identified theme. Continuing with the example used previously in the description of how I coded the transcripts, lines 236 and 237 might contain data relevant to a certain theme. So I would pencil in “KG-1-8-236” and “KG-1-8-237” In this manner I could go back to the original transcript to find the statement in its original context. This system worked for me on a small scale but quickly became cumbersome as I identified more themes and added more numbered statements to the matrix. The matrix became crowded and messy and the writing was squeezed in and hard to read.

The next system I tried involved cutting up the transcripts with scissors and placing the cut pieces of paper into piles representing themes. Some early themes included "self-identity as worker," "the system," and "multiple prior injuries." I first printed all the transcripts onto colored paper to help me identify this step of the process (in anticipation there might be more steps). Then I read each transcript closely and noted where the respondent changed subject. Each change of subject denoted a new piece of data, called a horizontal in phenomenological terminology. Transcript expressions had to meet two criteria to be considered a horizontal: (a) contain a moment of the experience that was a necessary and sufficient constituent for understanding it, and (b) be possible to abstract it (Moustakas, 1994). Using scissors, I cut the transcript at that point and placed the piece of horizontal data in a growing pile of other slips of paper with that same theme or in a new pile if the horizontal addressed a new theme. In this step, all horizontal meaning units had equal value though vague or redundant expressions were discarded. What remained were "the invariant expressions of the experience" (p. 121).

But I am a highly visual person and the above systems were not visual enough for me. Try as I might, I lacked a good mental image of each person and of the respondents as a group. I seemed mired in strips of paper and respondent expressions in isolation. A fourth technique I tried was to create a visual stick figure image of the fifteen respondents prominently highlighting the injured part of the body in a colored pattern. I drew the images on a large piece of butcher paper and it looked somewhat like the stick figure images in Figure 2. The participant figures are in no special order.

Figure 2. Fifteen Research Participants.



The image of the fifteen research participants was very effective for me. They became real people again. I had become so familiar with their interview transcripts that by looking at the injury sites in the drawing, I knew who the person was by name. The stick figures represented not human subjects in some sort of a scientific experiment but real human beings that I had engaged with in deeply personal conversations. Their personal stories were quite vivid to me. Some of them were in classes I had taught. I was becoming increasingly familiar with their stories and wanted very much to represent them honestly and accurately in my research report. I identified the stick figures with the respondents.

The tiny slips of paper technique did not work well. It was too mechanical for me; I lost touch of the overall sense of the data and was unable to apply my intuition. But some kind of process, some kind of systematic approach was necessary to identify and transform the horizontal data into clusters of meaning units (themes). It was important for me to build themes from the bottom-up while maintaining an overall sense of the developing themes from the top-down. My hope was that the bottom-up construction from the data would dovetail with the top-down decomposition of overriding themes.

I returned to the transcripts and divided the task of searching for horizontal meaning units into three parts, concentrating, in turn, on (a) pre-incident (pre-injury) statements, (b) statements directly describing the incident, and (c) statements addressing their thoughts and feelings after the incident happened. I reread the transcripts again looking only for meaningful, abstractable statements concerning pre-incident events and wrote them down, along with their line coding numbers, on a separate sheet of paper. The pre-incident review resulted in 32 pages of single-spaced horizontal data statements. It helped to separate the statements out from the bulk of the transcripts so I could concentrate on them, yet be able to trace them back to their original context. From the reduced set of pre-incident horizontal data statements, I moved back and forth in and among the data searching for statements that, when grouped together, formed thematic clusters of meaning units.

The incident review progressed similarly except there was less data with which to work. I identified and copied horizontal statements to separate pieces of paper and again worked up from the horizontal detail. Statements relating to the incident itself were very

descriptive and factual. The process moved quickly.

The process for searching for individual expressions of thoughts and feelings was long and required many detailed reviews of transcripts. Fortunately, working with pre-incident and incident data proved to be a useful rehearsal for the main event. The large amount of data made it too cumbersome to copy individual horizontal statements to separate pages of paper. Instead, I resorted to using a highlighter pen to identify relevant statements, and to making copious notes to keep track of meaning unit clusters as I discerned them. I used copies of the stick figure representation of the fifteen research participants (Figure 2) many times to capture meaning unit data specific to the theme clusters. For example, I used one copy of the stick figure drawing to capture meaning units pertaining only to the thematic cluster, "prior learning." I circled the nine stick figures representing the VR learners who had attended some prior postsecondary school. Across the middle of each stick figure I wrote the coded line number where the direct statement was made in the respective interview transcript. Being a highly visual person, the many stick figure drawings helped me to see the emerging data holistically as it applied to the whole group. Clusters of meaning units formed invariant themes essential to the respondents' individual experiences.

A constantly looming issue had to do with knowing when I was done finding themes or meaning units. Two indicators for testing completeness of this step were to: (a) associate all horizontal statements with some cluster until none remained unassociated, although I created a miscellaneous category for data that fit nowhere else; (b) continually review the data until a point of data exhaustion is reached when the data simply refuse to

reveal any new themes to me. This was tricky because a horizontal meaning unit may appropriately be placed in more than one thematic cluster. There finally came a time when I decided there was little more to be gained by trying to develop more themes. As described previously, meaning units were grouped into clusters and clusters into themes.

It helped me to create time line charts for each individual, depicting fragments of their abstracted meaning unit statements in relative positions on the chart according to time. I used fragments of meaning units because there was not enough room to copy down the entire meaning unit statements. The charts provided me a visually holistic view of each respondent's experience in the MVR program. The time lines graphically and effectively displayed major differences in the experiences of the 15 research respondents.

As I final step, I created textural descriptions for each of the fifteen respondents. The textural description "facilitates clear seeing, makes possible identity, and encourages the looking again and again that leads to deeper layers of meaning. Throughout there is an interweaving of person, conscious experience, and phenomenon" (Moustakas, 1994, p. 96). The textural descriptions formed the basis for synthesizing individual experiences into the final composite textural and structural descriptions of the collective experience. The goal of the chapter was achieved when I described the final essences of the VR learners' experiences. The fifteen individual textural descriptions also were used in the final step of this research study as basic data to searching for evidence of transformative learning.

In one section, I deviated from deriving pure descriptions of the VR learners' experiences by applying the Holmes-Rahe Social Readjustment Scale (HRSRS) (Holmes & Rahe, 1967) to each of the 15 textural descriptions (please see Chapter Two, Literature

Review, for an explanation of the HRSRS). The VR learners had already left school, so I was unable to ask them to score themselves on the HRSRS. Yet still curious as to how they would score, I applied the HRSRS to the narrative descriptions to gain an idea of the impact of concurrent stress on each of the individuals experiencing the vocational rehabilitation process. The derived scores are an outcome of my interpretation of the textual descriptions, and so are not as meaningful were the VR learners to complete the HRSRS themselves. My analysis technique in this case was projective rather than quantitative. Issues of validity and reliability were not germane for this process although the HRSRS scores provided valuable alternative insights to these learners.

Meaning of the TL Experience.

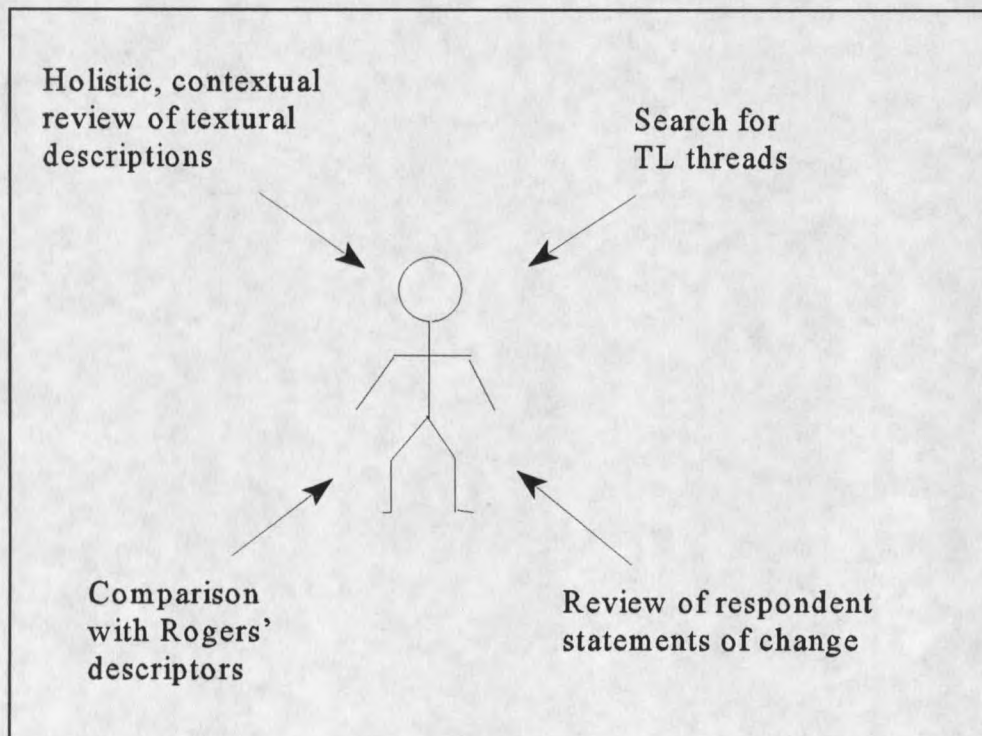
The final review for transformative learning experiences followed the previous three reviews to develop the meaning of their vocational rehabilitation experiences, and used the time line charts and textual description results of those reviews. I did not build-up clusters of meaning units from horizontal data statements as I had done for the first three methods. Instead, I conducted a four-part analysis using the meaning unit data already abstracted from the previous step to look for evidence of transformative learning.

Evidence supporting the transformative learning process is elusive and very much open to interpretation by the researcher (Mezirow, 1991). I searched for evidence of transformative learning in four ways: (a) first, by considering each of the fifteen VR learner textual descriptions holistically in a high-level overview while imagining the frames of reference each VR learner brought to the incident and to beginning school; (b)

second, by searching for and connecting transformative learning threads (meaning units related to transformative learning); (c) third, by comparing meaning unit statements with the descriptors defined by Rogers (1961) characterizing a person who has changed significantly; and (d) fourth, by considering statements from the interview question, "Please select the area where you have made the most changes."

The four-way analysis served as a type of triangulation, thereby strengthening my interpretive approach to investigating evidence of transformative learning (Creswell, 1998; Merriam, 1998). Figure 3 graphically displays the four methods for searching for evidence of transformative learning.

Figure 3. Four-way Analysis Searching for Evidence of Transformative Learning.



Each interview transcript was subjected to the four-way analysis, producing fifteen summary descriptions of the transformative learning experiences of the vocational rehabilitation learners. The 15 summary descriptions were synthesized to form one composite summary description of their collective transformative learning experiences.

Ethics

Numerous ethical issues surround the qualitative research study. Creswell (1998) cites four areas of ethical concerns: "protecting the anonymity of the informants, disclosing (or not) the purpose of the research, deciding whether (or how) to use information 'shared off the record' ..., determining whether the researcher should share personal experiences" (p. 132). Merriam (1998) describes more insidious ethical dilemmas involved with collecting and analyzing the data. Since the researcher is the primary instrument, "deciding what is important - what should or should not be attended to when collecting and analyzing data - is almost always up to the investigator. Opportunities exist for excluding data contradictory to the investigator's views" (p. 216).

Of paramount concern to me was protecting the identities of the adults who agreed to participate in the research. Although some professed complete openness - "I have nothing to hide" - they in fact related to me stories that would have caused embarrassment or discomfort if disclosed. Others shared their stories in a more confidential fashion and one was adamant that his name not be used or disclosed at all. At the time I transcribed the recorded interview tapes to word processing software files, I created fictitious pseudonyms. I also assigned fifteen numbers between one and fifty randomly to the fifteen

transcripts in case I needed to insure further anonymity at some time.

All research respondents read and signed the offered consent form. I additionally explained the purpose for the research and whom they could call should they be dissatisfied with the conduct of any portion of the research effort. And I specifically pointed out to them the protections afforded them as participants in the research (Appendix E).

Cautions concerning researcher bias are valid and are directly addressed in three ways. First, the format for the report of this phenomenological inquiry insures up front disclosure of my background, experiences, and philosophical beliefs that led to my curiosity of adult vocational learner experiences. Second, the process of the phenomenological method employs techniques of epoche and bracketing in recognition of the potential for researcher bias and prejudgments. Third, external auditors and peer reviewers were asked to review various aspects of the research process in efforts to disclose inadvertent bias on my part.

As of this writing, I still have two final ethical commitments to honor: one is to follow through with my promise to send a summary of my research to the respondents who indicated on their consent forms a desire to see a final report. The second is to destroy the interview audio tapes and transcripts at the completion of my study.

Measures of Quality

Validity and reliability are words associated with positivist inquiry. Using quantitative terms in qualitative studies "tends to be a defensive measure that muddies the

waters and that the language of positivistic research is not congruent with or adequate to qualitative work” (Ely et al, 1991, p. 95). Numerous author/researchers have offered alternative terminology more descriptive and conducive to qualitative research. For example, Eisner (1991) uses the term credibility rather than validity. Lincoln and Guba (1985) recommend using the terms “credibility” rather than “internal validity,” “transferability” in place of “external validity,” “dependability” instead of “reliability” and “confirmability” for “objectivity” (p. 300). Creswell (1998) suggests using the term “verification” instead of “validity” “because verification underscores qualitative research as a distinct approach, a legitimate mode of inquiry in its own right” (p. 201). Creswell further recommends that qualitative researchers use at least two of the eight procedures he advocates for verification: (a) prolonged engagement and persistent observations; (b) triangulation; (c) peer review or debriefing; (d) negative case analysis; (e) clarifying researcher bias; (f) member checks; (g) rich, thick description; and (h) external audits.

I employed six of Creswell’s recommended eight procedures for verifying accuracy and reducing bias in my study. My bias was stated in the first chapter in terms of my experiences and philosophical beliefs. Member checks were accomplished by sending the reduced transcripts to the fifteen respondents for their changes, updates or corrections. External auditors provided me valuable feedback on the accuracy of my transcribing the audio tapes to word processing files and my interpretations of respondents’ transcripts. Peer review forced me to articulate my methods and answer difficult questions of process to a professional who works with College students on a daily basis. The four-way analysis used to determine whether transformative learning had occurred was a form of

triangulation. And finally, the rich and thick descriptions in the respondents' own words insures the findings are representative of their experiences. Merriam (1998) further recommends leaving an audit trail, which I did through a detailed accounting of methodology.

Polkinghorne (1989) defines validity in qualitative research in terms of how well an idea is grounded and supported. He identifies five questions a researcher might ask:

1. Did the interviewer influence the contents of the subjects' descriptions in such a way that the descriptions do not truly reflect the subjects' actual experience?
2. Is the transcription accurate, and does it convey the meaning of the oral presentation in the interview?
3. In the analysis of the transcriptions, were there conclusions other than those offered by the researcher that could have been derived? Has the researcher identified these alternatives?
4. Is it possible to go from the general structural descriptions to the transcriptions and to account for the specific contents and connections in the original examples of the experience?
5. Is the structural description situation specific, or does it hold in general for the experience in other situations? (p. 57)

Polkinghorne's questions are relevant to my phenomenological study. My use of six of Creswell's (1998) eight recommended methods for verification address Polkinghorne's questions one through four. I am bothered by Polkinghorne's fifth question as it implies generalization of the results. I have not studied other situations so I do not know whether the results of my study "hold general for other situations." My phenomenological study is situation-specific and applies only to the adult VR learner-participants at the Helena College of Technology.

Three final actions help to insure a quality study. One was to invite one of the fifteen research participants to the presentation of the research effort. His presence insured my oral report accurately reflected the portion of the study of which he was aware.

Another step was to make the final report available to all fifteen research respondents so they could read for themselves whether anonymity was maintained and whether their stories were told in their voices. And a third action was to invite a professional who works with adult VR learners everyday to the dissertation presentation.

CHAPTER FIVE

THE MEANING OF THEIR EXPERIENCES

The purpose of this portion of my investigation was to describe the essence of the experience of adult vocational rehabilitation (VR) learners at the Helena College of Technology (HCT or the College). The essence of their collective experiences is “that condition or quality without which the experience would no longer be what it is” (Husserl, 1931, p. 43). The descriptions encompass a limited period of time in the lives of the 15 research respondents, all of whom have experienced the phenomenon of suffering a career-ending injury, participating in a publicly-funded vocational rehabilitation program, and attending the College.

The VR learners shared with me private thoughts and often intimate details of their lives. Two respondents in particular repeatedly muttered during their interviews, “I can’t believe I’m telling you this. I can’t believe I’m saying this.” One young man asked on several occasions that his name appear nowhere in the final report. In one instance, the interview respondent described a situation that could be grounds for a possible workers’ compensation fraud case. I used a variety of means to refer to the respondents, thus honoring my commitment to them to protect their identities. Research respondents are referred to by pseudonyms in their transcripts, two-letter codes, or randomly assigned numbers between 1 and 50.

This chapter tells their story. It is organized into four parts; (a) before the incident, (b) the incident, (c) the vocational rehabilitation learner - what it means, (d) textural descriptions, and (d) summary and conclusions. The aim of this research report is not to describe respondents' lives prior to their participation in the Montana Vocational Rehabilitation (VR) program. But from a contextual standpoint and for setting the stage for understanding their experiences, I believed it was important to provide a brief biographical basis describing the VR learners prior to their career-ending injuries.

Before the Incident

The vocational rehabilitation (VR) learners freely shared stories of their lives leading up to their incidents. Their stories are recorded in near-verbatim interview transcripts, primarily in response to question group number one, "Where would you say you are in this story-line? Does the story-line represent your life? Please tell me more about what caused you to stop working and ultimately receive voc rehab funding."

As described in Chapter Four, Methodology, I created lists of horizontal statements from each of the 15 interview transcripts relevant to "before the incident." The following is a list of ten example horizontal statements extracted from ten transcripts. The letters in the alphanumeric codes are fictitious to protect the respondents' identities. The numbers in the codes refer to the line numbers in the respective interview transcripts where the meaning units originated.

1. SS192 "The memory of the day [my father] was killed and everyone walking around and saying it was God's will. I was pissed off at God for 32 years."

2. HH281. "I've been a race car fan and I used to ride motorcycles. I was never real good. I won a few races but never stood out. I was never a competitive person. It's just for the fun of it. I never got a chance to race cars but I always wished I could have. Not like flying. I got my flying license."

3. BB29. "But mind you from 1986 to 1994 my back was injured seven times."

4. AA6. "I was a little wild - I was on my own since I was 14 years old."

5. CC149. "I got in trouble and had to go through alcohol abuse training, substance abuse."

6. FF12. "[He pointed to where the bullet went into his chest.] Yeah, I was a little hellion. Always had a lot of friends but some were not real nice. I had to prove I wasn't afraid.... I was the black sheep of the family."

7. LL9. "It took quite a few incidents to slow me down. I'm a hyper person. I think you can tell that already."

8. GG31. "I was smoking pot and got busted. First offense and they sent me to prison for 30 years."

9. KK112. "I worked 10 jobs most of the time we were separated. I worked during the week from 6 in the morning to 1 the next morning without a break."

10. MM9. "Being outside and doing all that work was wonderful."

I reviewed each of the 15 sets of horizontal data statements and jotted down identified themes or meaning unit clusters on separate paper as I progressed through the review. In a second review of the transcripts, I wrote the code for each horizontal

statement under one of the thematic clusters until I was satisfied all horizontal statements had been accounted for. The resulting clusters or emergent themes are shown in Table 5.

Table 5. Before the Incident Meaning Units.

Meaning Unit Cluster/Theme	Number of Respondents Reporting that Meaning Unit
Alcohol/Drugs	8
Multiple Jobs	15
Difficult Relationships	7
Physical Labor	15
Hellion/Black Sheep	8
Active Lifestyle	12
Resentment/Hatred Towards Family	4
Previously Attended Postsecondary School	9
Identify Self as Worker	11
Poor Student in High School	7
Continued Working after Injuries	11
Prior Computer Experience	6
Satisfaction with Life (dissatisfied/satisfied/unknown)	8/4/3

The column labeled “number of respondents” represents the number of interview transcripts containing specific comments that could be categorized within the identified meaning unit. But the absence of a comment for a theme did not necessarily mean that the theme was not relevant to the respondent. It only meant a quote identifiable for that theme was not made by the respondent and so did not appear in the transcript. The respondent may not have thought about it at the time of the interview, may have preferred not to

disclose that item of information, or perhaps the respondent did not think the issue was pertinent to our interview conversation.

The 15 themes were combined to form five higher level themes, discussed in the paragraphs below:

1. Troublesome past (alcohol/drug abuse, difficult relationships, black sheep/hellion, family issues in childhood, poor student in high school)
2. A strong ethic for work (multiple jobs, self-identification as a worker, continued working after injuries)
3. Getting physical (physical labor, active lifestyle)
4. Prior learning (attended post-secondary school, prior computer experience)
5. Life satisfaction (degree of satisfaction with life)

Troublesome Past

Typically, the lives of the VR learners evidenced at least two if not three of the meaning unit experiences which formed this theme. Table 6 on the next page shows the number of troublesome experiences reported by each respondent. Twelve respondents reported two or more difficult areas of their lives prior to their career-ending incident. Respondents are represented in the table by a randomly assigned number. The data are in order of increasing number of difficulties contributing to troublesome past, but otherwise there is no order to the table. The data are displayed in a table format to facilitate comparisons across all respondents.

Table 6. Experiences Indicating Troublesome Pasts

Respondent Code Number	Alcohol/ Drug Abuse	Difficult Relationships	Hellion/ Black Sheep	Family Issues During Childhood	Poor Student in High School
43					
31			X		
27			X		
28	X				X
12	X		X		
7	X		X		
49			X		X
21		X	X	X	
35	X	X	X		
32		X		X	X
22		X	X	X	X
52	X	X	X		X
46	X		X	X	X
6	X	X	X	X	
14	X	X	X	X	X

Alcohol or drug abuse. Abuse of alcohol or illegal drugs was reported by eight research participants. Six respondents participated in self-referred or court-ordered substance abuse treatment programs for their addictions, one person stopped drinking on his own, and the youngest person (temporarily) quit drinking upon his return home from an aborted attempt at college. Problems with alcohol were typically mentioned briefly: “[I] moved to Helena. Was not happy. I was miserable. I didn’t know anybody.... That’s when

the alcoholism fell into place.” A construction worker describes his drinking habits: “I admit I used to drink a lot of beer. Work hard, play hard. I would consume 6 to 12 beers a day.” Another construction worker talked of his revulsion of what he had become. He addressed his problem succinctly.

I had developed an unbelievable drinking problem... Then the drinking won. In 1985 I realized I couldn't stand me anymore. I hated my guts. About half my drinking was to hide from me... One day ... [I] was at a bar and somebody bought me a beer and I have no idea why, but I pushed it away. At that instance I knew beyond a shadow of a doubt that it was over. I've never had another drink.

Seven of the eight research respondents reported coming to grips with their abuse of alcohol or drugs. The eighth person, however, also shared his perspective on the use of pot (marijuana)

“...I don't see harm in it. I see harm in getting caught with it. But as for its use, I don't see a lot of harm in pot.... I would get in a truck with somebody high on pot but I wouldn't leave my kitty cat with someone who was drunk, yet it's OK to be drunk. So my belief is you don't get caught.”

Difficult Relationships. Difficult relationships were defined as those ending in divorce, in the case of married couples, separation of married couples or two people intending to marry, or participation in marriage counseling. Prior to their incidents, 8 of the 15 respondents had relationship difficulties. The difficulties were typically mentioned in passing: “... my former wife.” “She is my second wife.” “My wife and I both went to counseling for awhile.” Only one talked at some length about a previous abusive relationship that was fortunately long over.

Hellion/Black Sheep. The majority of the respondents - thirteen - described themselves as hellions, black sheep, rebellious, or somehow indicated they were different and separate from other members of their families. "I was the loner in my family. I was also the hero." Two respondents indicated they had brothers or sisters who had attended college but they chose not to follow their siblings to formal education beyond high school. Three individuals learned later of medical reasons for their hyperactivity or "different" behavior: one person was diagnosed with a learning disability as an adult, another respondent had a thyroidectomy to remove his over-active thyroid, and a third individual began treatment for bi-polar disorder after his career-ending injury.

Family Issues in Childhood. Six interview respondents reported problems from their childhood. Four individuals spoke strongly of injustices or abuses inflicted on them. Elliot was brought up by his mother. His upbringing was apparently very difficult.

I did not respect my mother for the longest time. I had a lot of resentments towards her. And that stems back from the adoption part of my life that I'm able to deal with now on a better level than before. I wasn't told I was adopted until I was 14 years old. And that's when I was shipped off to Montana, because it was either that or the boys' home. That's how bad I was. A lot of resentments.

Ken spoke in low vernacular tones about his father.

[My dad] is a big ass brute. People are scared shitless of him. I'm not like him. I fashioned myself not to be like him. He was abusive to us [kids]. I'm just totally different from that. I told [my dad] that I hated him and that made me feel bad. I told him that a long time ago. He's supposed to love me. He was my idol. He couldn't do nothing wrong when I was a kid. And then I started seeing what he did, beating up on my mom, going out on her and stuff. I started thinking, why do I admire this person? My dad told me I was dumb. When I had my mental problems, it was because of all these past things that I feel guilty about.

Bruce had a rough upbringing. "There's the normal, typical American family and then there's mine." His mother abandoned him when he was young and he was made a ward of the state. He lived with an older family, his "guardian angels," but when they were unable to handle his tirades, he was sent off to "a mental ward." "I was more than a handful," he says, "but I loved them with all my heart. I never shed a tear when my [real] father died and I don't know where my mother is. There was a lot of abuse there, more than I care to talk about." Bruce was heavily medicated between the ages of 14 and 18 years and was "in a perpetual sleep. I was hyper, could hardly function. Had to see a shrink twice a week and get injections."

Matt also needed professional counseling to handle his anger and memories of the day his father was killed.

... the memory of the day he was killed and everyone walking around and saying it was God's will. I was pissed off at God for 32 years. I was also pissed off at my aunt and uncle.... A couple of years later I was sent to live with them. I became their chore boy and had to wear these God awful double knit pants while everyone else wore jeans.

One respondent spoke of problems of his heritage. "I'm one half [tribe name]; a half breed. You didn't know that? When someone made fun of my grandmother – she's full-blooded [tribe name] – 'cause she was in a cast, I punched them out. They hurt me real bad but I hurt them, too. Had to teach them a lesson. He stabbed me in return."

Ted suffered from years of undiagnosed hyperactivity resulting later in a thyroidectomy.

At the fifth grade, I was a straight A student. One year we went on a picnic. I got real sick and collapsed and ended up in a hospital one hundred

miles away. All the sudden my attention span decreased and I became real hyper. I have family movies of me. I was real hyper, like a spring wound up. I would just pounce. It got worse during high school. I would go two or three days without sleep. Then I would pass out and I would go for 24 hours of solid sleep. That's the way I was. I was a poor student in high school and all through college.

All six individuals have sought professional counseling for their personal issues.

Poor Student in High School. Seven of the fifteen respondents described themselves as being poor students in high school. Elliot reports, "When I graduated from high school, I said I'd never go back to school. I was just in there for the sports." Dave merely stated he didn't get his GED until he applied for admission to the Helena College of Technology. Dan was a high school dropout: "The accelerated class of 75," he chuckled. Roger said, "I never wanted to get good grades before. I just wanted to get through." Barry added a little humor; "I was far from an exemplary student. I was number 303 out of 308."

Two individuals learned in high school or after high school that they had had medical conditions which contributed to their poor performance in grade school. Ted, whose thyroid was surgically removed due to his hyperthyroidism, reflected, "I was a poor student in high school." It wasn't until his adult years that Ken was diagnosed with a learning disability. As he reflects back on his family life in his childhood years, he realizes his learning disability was undiagnosed at that time. "[I left high school in my sophomore year.] I didn't do too good. I got Fs. That's why I quit. I just couldn't understand things. I didn't know at the time that I had a learning disability."

Getting Physical.

This theme encompasses two sub-themes; an active lifestyle and physical labor. Declaration of an active lifestyle appeared in a majority of the interview transcripts (10 of 15) and performing physical labor characterized all 15 transcripts. Respondents used phrases such as “Up until the incident I was extremely active” and “... ever since I was born I’ve always been on the go.” One young man reported, “I had never really done anything that wasn’t physical.” A graduate replied, “I dropped a lot of high risk [activities].” Another family person stated, “We used to go out and hunt and fish with the boys all the time. Every weekend we were busy.”

Four individuals were more adamant about their level of physical activity prior to their incidents. The first, a construction worker, exclaimed,

I was very physical. Well, what I mean by physical is I used to take martial arts, scuba dive, hunt quite often, play football whenever I could get with the boys. I was a very active person. Now I’m basically a couch potato deadbeat. I’m exaggerating ... but I used to be a very physical person.

Another individual lamented in terms of what had been lost: “Up until that point, I was extremely active. No holds barred, nothing stopped me. I could lift anything, I could move anything. Packer, firefighter, cabinetmaker, whatever.... I’d push the hell out of myself.” A third VR learner who had previously described himself as “a hellion ... a black sheep” talked about the importance of hunting to him; “I would crawl out on my belly if I could. I went hunting once with my cast.” The fifth person continues the activities he did before: “[My activities] before were boating, fishing, hiking, and camping. I used to race motorcycles ... [and] I got my flying license.”

The importance of involving their families was mentioned by two respondents, both in terms of being outside. In reflective tones, one of the two respondents said, "A big part of our life is taking family vacations. They pull us together.... I remember how we used to go out and hunt and fish with the boys all the time. Every weekend we were busy." The other respondent reflected on child rearing, "I was a single parent. My kids never lacked for nothing, you know. They both know how to shoot, they both know how to fish. I used to do everything with my kids. They both know how to camp, they could survive in the wilderness if they had to."

Physical labor characterized the jobs of all 15 interview respondents: seven people worked in oilfield, highway, or building construction; there were two automobile repairers; one printer; a licensed practical nurse; an electrician; one furniture mover; and three other laborers.

Prior Learning

A surprise to me was the number of respondents who had previously attended a postsecondary institution and the number who had some kind of previous experience with computers. Nine individuals attended some type of postsecondary school - university or college, vocational school, trade school, or military occupational speciality school - sometime in their lives prior to their career-ending incident. Three VR learners earned college degrees; two earned undergraduate degrees from four-year institutions, and one other earned an Associate of Arts degree from a two-year school. Three individuals attended one, two, or three years of college but did not earn degrees. One graduated from

a trade school, one from a proprietary school, one attended vocational schools but did not finish, and three attended military occupational schools while in the service. The numbers of participants do not add up to nine because one person attended three different types of schools. On the other hand, four VR learners did not finish high school and instead, received their General Educational Development (GED).

Life Satisfaction

Describing their lives leading up to the career-ending injury, fewer VR learners (four) expressed satisfaction with how things were going than the eight who expressed dissatisfaction. Three transcripts contained no direct references to satisfaction or dissatisfaction. Phrases of satisfaction include: "It was a job I really liked," or "I had it pretty much made. It was a good career," and "Being outside and doing all that work was wonderful.... I liked it and thought it was going to last."

Statements of dissatisfaction were fairly strong: "My life wasn't going anywhere"; "I haven't been totally comfortable with my life, yet"; "Every career or job I set out on has disappeared. I feel like a real failure"; "I was going nowhere in a hurry. I was wore out"; "I never felt personally satisfied. I was just doing it."

The Incident

The incident refers to the precipitating injury effectively ending the vocational career of the research participant. The individuals described their incidents in simple, yet graphic terms, captured as meaning units. The following are 15 incident meaning units

extracted directly out of the interview transcripts.

1. "I was loading some iron into a skip and my elbow popped and that's about all I could really say about it."

2. "Got in a car accident and broke my neck....Flipped it one and a half times in the air, jumped a canal, landed on its roof."

3. "You know how highway workers stand up on the back of a truck and they jump down? Just climbing up and down off the equipment, I have what they call tarsal tunnel syndrome in both ankles."

4. "I was putting in a second story window and the ladder went out from under me. It was my fault. It was stupid positioning. My right leg went through a saw horse - I hit it stiff-legged. Was really lucky I didn't break my hips or my back. The saw was running and I had stuff sticking out of my pockets.... the doctor said it was crushed ... broke the bones in 30 places."

5. "I was carrying a 5-gallon bucket and a rope thrown over my shoulder and my arm was going numb. Then I fell out of a pole from 40 feet. Messed my leg up again and my arm went all the way numb and I got this headache out of it."

6. "I injured a disk in my lower back.... went back to work ... and blew it out again, this time worse."

7. "The carpenters before me were supposed to cleat it. They didn't do it and I didn't know it. I'm on the last one and I saw the other guy with his mouth open and I knew what was going to happen. When it came down, there was nothing I could do. I hugged the beam. It clipped me in the back and I left there in an ambulance."

8. "...we were carrying a couch-hide-a-bed, a sleeper couch, down the stairs. And the kid stumbled and tripped and let go and I went downstairs with it. And I tumbled and the couch came down and landed on my shoulder and threw me into a wall."

9. "[we were turning a guy over in bed] and I got ready to take him because I knew she couldn't lift and she lifted him a foot off the bed. I sprung everything in my back from my neck to my coccyx. Separated the ligaments between my shoulder blades."

10. "But I was a good tire man and they do a lot of tire work there. It's one of the hardest jobs on your hands. Your hands cramp even if ... my fingers got to feeling like they were three inches thick at the time. I couldn't pick a pen up. Couldn't feel it hardly. I couldn't write people's orders out. I went to the doctor. I couldn't handle it anymore. He checked me out and said you have whatever."

11. "But mind you from years 1986 to 1994, my back was injured seven times.... [One day] I was washing the car and bent down to put a sponge in the bucket and the tendon snapped in half. It was all I could do to crawl into the house and call the paramedics. I was in traction for nine days. "

12. "... and July 18th is when I hurt my back."

13. "He stabbed me in return ... Then came an accident. The wheel hurt me. It's a 500-pound magnetic wheel used to pick up metal stuff and to move things. The wheel fell and I tried to catch it. Twisted my back, was in the hospital and couldn't walk for a month....[Then] a guy in a 3/4 ton pick-up truck had a stroke and hit the accelerator. I saw him coming and tried to jump away but he rammed me.... When I was bending over [the elk] I got hit on the head with my rifle. Spinal fluid started coming out of my nose.... Then

last summer a bee flew in my eye and stung me.”

14. “I worked for years [as an electrical contractor] until I tore out my knees. And I had surgery and the doctor said if you keep on being a contractor chances are you’ll have to have total replacements in your knees within one year.”

15. “Six years ago I had the accident and lost my leg.”

Only one of the fifteen accidents - the broken neck fractured in a rolled vehicle - resulted in a clear case of non-work related injury. All the other 14 incidents were in some way related to work.

For some people, their injury was a single incident; they had not been previously seriously injured. For others there were either two or more incidents of injury or there was an insidious onset of a debilitating injury. A review of the interview transcripts revealed the incidents could be grouped into three clusters: (a) single, (b) multiple, and (c) insidious onset. Table 7 shows the types of injuries by cluster.

Table 7. Meaning Unit Clusters of Incidents.

Single Injury Incident	Multiple Injuries Incident	Insidious Onset Incident
Amputated Leg	Hurt Back Twice	Carpal Tunnel of Wrists
Crushed Foot	Multiple Various Injuries	Worn-out Knees
Fractured Neck	Multiple Various Injuries	Tarsal Tunnel of Ankles
Hurt Shoulder	Multiple Back Injuries	
Hurt Shoulder and Arm		
Hurt Back and Neck		
Hurt Back		
Hurt Back and Neck		

Ten individuals returned to work following the diagnosis or treatment of their injury. Elliot states simply, "I was in traction for nine days. They released me ... and I went back to work."

Roger felt he was directed to return to work.

The accident that happened ... I mean, I can't blame that on anybody, really. It happened. [But] ... you see, they made me keep on working. They wouldn't accept that I was hurt. They'd ask me how it happened and I'd say well, I'm not sure how it happened, it just did. I'm having trouble lifting things and my arm's killing me. And they said, well, if you don't have a specific reason for how it happened, then you'd better go back to work.

Two respondents, when asked to return to work, agreed. A construction worker relates his story about acquiescing to return to work: "Then they offered settlement with me and indicated to me that I could return to the work I was originally doing before the injury. It seemed kind of odd to me but I said OK. And I blew my back out again, this time worse." A licensed practical nurse related:

I sprung everything in my back from my neck to my coccyx. Separated the ligaments between my shoulder blades. Did a real good job on myself. Was laid up for six months. And then went back to work because workers' comp was crying poverty to my doctor. And since I'd always worked two or three jobs at the same time, my doctor asked me if I was willing to go back to work and I told him sure. Well, I went back to work and I never could get back out of work.

Personal reasons motivated two respondents to return to work. Barry liked his job. "Got in a car accident and broke my neck. Went through two operations....After the accident I wasn't able to do my job properly ... I kept telling them it bothered my neck to look down all day long." Dan, a construction worker, felt pressured to return to work to save his floundering marriage.

I was relatively certain that if I quit an income source and went to school that would be the end of my marriage. I started sheet rocking while still on crutches. That was insane and had there been anybody around from workmans' comp, that would have been all she wrote and I would have been in big trouble.

Two VR learners identified themselves as "workhorses" and were challenged back to work by appeal to their ego.

It took quite a few injuries to slow me down... But working for this company, I had so many injuries it wasn't even funny.... I was a real workhorse. I did the work of two men because I like to stay in shape.... My supervisor asked me to lift the beam. Said I was the man for the job. I said 'Sure.' ... Well, my stomach wall ripped and my intestines pushed in there. It hurt like heck for a couple of days.... They removed some of the dead intestine. I was supposed to wait about six months to return to work but I went back in three months. Big mistake.... [In another accident with a beam] when it came down there was basically nothing I could do. I hugged a pole. [The beam] clipped me in the back. I left there in an ambulance.... I went to work the next day in a back brace, body wrap, pills, and a cane. Typically I bite the bullet, bite the rag. But this time the pain was so excruciating I didn't say a word. That's how they knew I was really hurting. They used to call me 'the Fall Guy,' a stunt guy. They talked me into coming to work because they knew I was a tough guy.

The wheel (a 500 pound magnet) fell and I tried to catch it. Twisted my back, was in the hospital and couldn't walk for a month. Moved back to Helena after I got out of the hospital. I can be real stubborn. I can't stay in bed and just wait. And I can't listen to the doctors. They only tell you what you can't do.... [At another job, I] threw a tire up on a shelf. It fell back and hit me in the neck and head and perforated a disk in my neck. Couldn't go back to work then. I didn't believe in workers' comp then. Didn't want any part of it.... Also, I like work.

Initial reactions to their incidents varied widely. On a continuum ranging from devastation on one end to relief at the other end, I placed four individuals at the end signifying major difficulties in accepting the injury. Although Matt's incident occurred over five years ago, tears welled in his eyes as he said during the interview, "And life as I

knew it ended that day.” Mark also views his incident as destroying his life. “My whole entire life changed,” he said. For several months, Roger thought his injury would heal and he would be back at work. Then he got the results of a thorough medical evaluation. “At that point is when I really started getting scared.... When I was posed with the question of what to do next, I was really confused.” Augie was very unhappy at leaving the work he loved so much. Several times during the interview he stated, “I would rather have gone back to work.” He continued, “I look back on [something that happened at work] and wished I could have changed it because maybe the incident wouldn’t have happened.”

The immediate reactions of three VR learners was relief. A significant external event appeared necessary to put a stop to their lives going nowhere. Elliot exclaimed, “I was going nowhere.... [The injury] was the final blow of where my life was going.” Ken, referring to his injuries, numerous medical treatments, and dealing with workers’ comp said, “[The change] was forced on me and I see how good it was.... It was a pain in the butt having to do that but now I’m happy I’m out of it. I was going nowhere in a hurry. I was wore out.” Daryl expressed his delight in almost exuberant terms.

I went home and thought, OK, now what are you going to do? ... I thought, well you wanted to get out of it but it’s not quite what I had planned.... But I hung out at home for a year while I was on crutches and fixed lunches for my kids and read stories. It was awesome. It was the best thing that ever happened to me.

Other VR learners reacted to their incidents in ways between the two extremes described above. Bruce challenged the doctors to prove his injury and pain had a physical basis and was not all in his head. “So I put them on the spot. I checked into a psychiatric ward because I said they were causing me depression. They psychoanalyzed me and said I

had a bi-polar disorder.” Later, having visited an orthopedic clinic, he described the telephone call from the doctor. “But when she called me about the arthrogram [she] was quite contrite. They said I had been telling them the truth all the time.” The one individual with a catastrophic injury resulting in amputation of his leg minimized his initial reaction. “It was definitely aw shit,” he said. Another respondent, Ted, decided against immediate major knee replacement surgery and instead took six months to decide what he wanted to do next. Mary and Barry accepted their injuries and pains and returned to work for several years following their incidents.

The Vocational Rehabilitation Learner - What it Means

The two sections above, Before the Incident and The Incident, set the context for this section describing the meaning of the adult VR learners’ experiences. Question group two elicited participant responses relevant to the meaning they ascribed to their experiences, although other statements throughout the interview transcripts supported this theme. Question group two, “After injury” was comprised of five sub-questions: (a) Please describe the time after your injury; (b) What was it like for you?; (c)How did you cope?; (d) What got you through that period of time?; and (e) What stands out?

The following lists the clusters of horizontal meaning units which emerged from the data. Each of these themes is described in the paragraphs which follow.

1. Pain
2. Systems
3. Other issues

4. Family stress
5. Hidey hole
6. Turning point
7. The HCT experience
8. Support
9. Changes
10. The Good Life
11. The incident in retrospect

Pain

The subject of pain came up explicitly in thirteen of the interviews and was implied in the other two interviews. Pain caused by traumatic injuries or the insidious onset of repetitive motion injuries pervades the experience of the vocational rehabilitation learner. Acute pain signals the need for intervention; it is the body's call for assistance. By definition, acute pain is short lived. Most VR learners experience chronic pain, the constant in-the-background type of pain of more than six months duration that never really goes away. Chronic pain nags; it is persistent, but the individual is not always aware of it. Chronic pain does not rule the individual's life. Chronic pain syndrome, on the other hand, is characterized by a preoccupation with pain. Pain rules the life of the person suffering from chronic pain syndrome.

Four VR learners provided vivid accounts of their pain. Three of the four learners describe pushing through pain barriers or somehow, inexplicably, coming to terms with

their pain. Their stories demonstrate the devastating effects when the pain is in control, and the exhilarating feelings when pain is subdued. Mary told how she initially did not cope well following her back incident, until one day, she suddenly stopped worrying about the pain.

In five years, I can tell you three days that I didn't have pain. And I think two of them were because I was drunk and couldn't feel it. I was in constant pain. I would go home and cry myself to sleep every night. I was miserable. I lived a complete miserable life. I became a recluse. I never talked to anybody. I went home and slept. I got up, I went to work, I got home and I slept. I cut myself off from all my family. I became a real recluse.... I was in such pain. I went to the doctor every three months. I got injections in my back. I was on medications, all the way from Tylenol 3. I was just really miserable. It was like nobody cared.... And that summer I decided that if I was going to hurt all the time, then by God I was going back to something that I wanted to do.... I still have pain all the time, but, I don't know what the difference is. For some reason, maybe my stress level or something, it's not incapacitating me anymore.

Matt, an HCT graduate in 1995, described his years of battling pain.

And for the next 18 months [following his back injury] the doctors did a conservative approach with me which involved nothing but a whole lot of drugs. And they tried doing rehab on me.... I jumped through every hoop they threw at me trying to get better. And the condition continued to get worse.... I started school before surgery and went a semester before surgery.... The semester after surgery I was in bed the whole time. And virtually after surgery for two years I was either at school or in bed. The doctors continued with their extreme regimen of medications.... I was in a fog the whole time I was [at school]. I took 35 to 45 pills a day for almost four years. The mindset [the doctors] put me into was awful. I was stoned all the time. Being foggy. No retention. Talk about a short term memory loss, I had no memory. There's a good portion of that four years that I don't remember.... In December 1996, I started realizing the doctors ... the lights were starting to come on.... It was probably the realization that either I get up off my ass and try to do something or I was gonna die. Man, it took me six weeks to walk around the block.

Ken's story is different in that his pain comes from repetitive motion injury to his

wrists. He willingly shared his story of years of working with his hands and wrists. Not included in this paragraph but documented in his interview narrative are the years Ken “was forced to box” by his father.

My hands were messing up at the bar (he was a bartender) but I could handle it. It got where they weren't quite so numb. [He next got a job as a tire man.] I wasn't in shape for working [there]. I wasn't use to it. But I was a good tire man and they do a lot of tire work. It's one of the hardest things on your hands. Your hands cramp even if ... my fingers were feeling like they were three inches thick at the time. I couldn't pick a pen up. Couldn't feel it hardly. I couldn't write people's orders out. I went to the doctor. I couldn't handle it anymore.... I was off for over a year. I went through operations on one hand and then an operation on the other. Then I went through therapy.

The fourth vivid description is offered by Mark. Although attending school for his second semester, Mark has earned less than 15 credits. He is unable to take more than three classes at a time. He explained why.

And literally for ten years my head has been exploding. Just sitting there in a chair and exploding.... I just sat there frozen. It was horrible. I can't even begin to tell you. The only way I can sum it up in my own mind is the only time I could relax and quit crying and my face didn't feel like there was a crack up the middle of it was when I was planning suicide. And then I calmed down. I didn't hurt. Isn't it a hell of a note that the only way to calm yourself down was to dream about your end? ... I got this medicine ... I tried a full load but it was too much. I was stressed. It was too much and too many hours. [I coped] with pills and pot. Pot was the best part. It relaxed me.... [The doctor] put me on some real powerful stuff. It got me up and I'm doing OK. I can get up and talk to you and not cry half the time.... I'm in school and I'm hoping that with programming I can find something here that'll allow me the freedom that I can have my headache on days that it just crushes me to my knees.... [My current] life is full of pain.

Other VR learners are not as graphic in their descriptions of their pain. While understated, they, too, suffer from daily pain while in school. Augie extended his thoughts

describing the impact of recent surgeries on his schooling; "Sitting. Getting tired. I have one class at 4 p.m. and the other starts at ten. By four, I'm tired and I hurt.... Some days the pain is more than others." Dave confirmed the difficulties of one who experiences daily pain:

That's my biggest problem, impatience. I used to be patient but am totally impatient now. I want to do things fast before the pain comes. Can't do it real well. A person gets pretty tired of the pain.... I like to be in control of my thinking. Like pain pills. I don't take heavy duty pills unless I really need them.... I can't let pain rule me.

Roger talked of his pain in relationship to performance in keyboarding class: "The faster I tried to go, the more I hurt. And trying to be specific with the mouse, like trying to draw. Now that'd really hurt." Barry had trouble sitting through a 50-minute class; "I still have a lot of pain now. Don't take any medication for it. I just learn to live with it. There's times when I can't even sit through a half hour of school."

Curious are the four individuals who did not mention pain in their interviews. Three of the individuals graduated three years ago from HCT and the fourth was in his fourth semester of school at the time of the interview. Two of the four suffered catastrophic injuries; one lost his leg while working on a highway bridge crew and the other crushed his foot and ankle in a construction accident. Neither talked of their physical pain.

Systems

An injured person is thrust into the bureaucratic worlds of insurance companies, public or private workers' compensation systems, the medical establishment, attorneys,

public assistance, the Montana Vocational Rehabilitation program, and a public postsecondary secondary education institution. For the majority of the VR learners, their experiences with the officious systems were unpleasant at best and ugly at worst. Matt described the terrible triangle that was created.

There were times when I almost felt good enough to go outside, but I wouldn't go outside because I was afraid someone would call and say I was fudging on them. Fear of the system as well. It created an awful triangle ... fear, pain and drugs, and the workers' comp system.... It was very easy to get caught in. It fed on each other. Each point fed on each other. And fear of losing workers' comp because if I lost that I couldn't support my family because I was disabled.

Elliott was videotaped.

It made me angry the state thought I was lying. As a matter of fact, about a year after I was at the bowling alley and I was bowling, they videotaped me. Somebody came out from Seattle, Washington, to videotape me bowling. Basically my doctor said don't bother me, don't waste my time. Elliot can do bowling as long as he doesn't use more than a ten pound ball.

Three respondents said they were advised to hire a lawyer as soon as they were injured. "Probably what saved me again is when this injury first happened, I got an attorney right off the bat because I knew it was going to be ugly. That's the advice I got from everybody, to get an attorney, so I did."

Roger's case provides another example:

God, I'd never imagine the tension it causes. The way workers' comp set everything up, it's pretty much just for them. The person who gets injured has to do so much in order to get anything even remotely coming to them. It's almost ridiculous. When I got a lawyer I thought I could breathe easy. I would have the stress off me. Not even close. You still have to call them up every day and babysit them over it.... there's certain things they try and get past you....

Three individuals were quite vocal in their anger, perplexity, confusion, and

frustration with the systems. Matt complained in bitter tones, still angry after almost five years has passed:

The most degrading thing I did at that period of time was something they called work-hardening. It was something [the hospital] did to get people back into the workforce. The thrust of the thing was having me sit in a chair for 45 minutes. There's no exercise or nothing. They were trying to build up my tolerance for sitting. It was a waste of time and money. They'd hand me a magazine and tell me to go sit in a chair.... The rehab people were ridiculous. Their attitudes were psssst! ... SRS (now abbreviated DPHHS) did a rehab plan on me that I was very dissatisfied with. I was dissatisfied with the people they assigned to me.

Augie's confusing experiences with the systems seemed to be fresh on his mind at the time of the interview. He mentioned his frustrations several times:

I didn't have any help from any of the agencies that were helping me. Not workers' comp, not [the organization he worked for]. So I found voc rehab on my own.... I was more or less just sitting around and waiting for them to do something.... A lot of frustration because I wasn't getting no answers from [anybody] about what was going to happen. More or less I did all the pushing and trying to get things done. At times it was frustrating because I was making all the phone calls and I wouldn't get phone calls back.... And somebody who gets in there and tries to get along and do the work, they get shoved in the corner, in the shade, out in the cold.

Melvin, a graduate, said he remembered the period of time after his injury incident as "...disappointing, frustrating. Disappointment in ... how the system was moving along as far as resolving the issue.... I then hired a lawyer to assist me ..."

Dave and Bruce never trusted the systems in the first place. These two workhorses worked "under the table" without employer insurance coverage and when they did get hurt, they refused to report it "to the authorities."

There were positive experiences with the systems, too. Daryl had his first check within two weeks of his accident. Barry said he "got nothing but help" from the many

people there to assist him. Dave's experience was very interesting. Dave suffered a catastrophic accident. He tried returning to work but encountered additional medical problems. At the time of the interview he worked out of his home though he was connected to his place of work through a telecommunications connection.

They set up a committee at [his work place]. Like five or six people on this committee that are working with workers' comp and me to put me to work here at home. So every three or four months or so we'd have this big meeting and they'd ask how things are going and pretty soon they'd want me to increase my hours [chuckle].... Their goal of course, is to get me back up to eight hours and into the office.... There's a lot of them bending over backwards to make this work. See, I'm an experiment to them. They've never done this kind of thing before... I'm the guy who will set the standard for anyone else.

Other Issues

Several meaning unit data statements collectively formed the "other issues" cluster. This cluster is composed of data statements describing additional personal issues separate from the injury and not part of the next financial stress category, yet directly impacting the VR learner. Issues in this category include:

1. learning disability, "I didn't know at the time that I had a learning disability"
2. bi-polar disorder, "They psycho-analyzed me and said I had a bi-polar disorder"
3. depression, "... back in your depressed life, like what are you going to do?"
4. unresolved anger from childhood, "A lot of hatred ... a lot of resentment towards my mother ... and that stems back from the adoption part of my life..."
5. hyperactivity, "[I] was so hyper, I could hardly function"
6. emergency medical care during the semester unrelated to the incident, "... until I

almost died last March with the appendicitis”

7. family genetic tendencies resulting in undesirable conduct, “But there may be some genetic tendencies somewhere in my line that I think about.”

8. ulcers, “I was diagnosed with a peptic ulcer ...”

9. impending birth of first child, “We’re expecting [our first] baby in April ...”

This cluster could be viewed as a miscellaneous or catch all cluster. However, it revealed lives burdened by more than the precipitating incident that triggered their return to school. School is but one concern of the adult VR learner.

I used the Holmes-Rahe Social Readjustment Scale (Holmes & Rahe, 1967) (Appendix H) to derive a life change unit score for each respondent’s transcript to gain an idea of the impact of life stressors on their lives. Five individuals scored above 300 life change units (points) and all 10 other respondents scored in the middle bracket. None scored below 150 points. Table 8 shows the results of my scoring based upon my interpretation of the respondent transcripts.

Table 8. Results of Holmes-Rahe Social Readjustment Scale

Lowest score	Highest score	Average score
183	462	283

My scoring from their interview transcripts is not an accurate representation of the stresses in the lives of the VR learners and their families. For example, I may have marked a score in an area they did not consider stressful. Be that as it may, and given that my scores are off by as many as 50 points, the results continue to show multiple stresses in the

lives of these individuals.

Family Stress

This cluster was intended to focus on financial and family issues that tended to place the VR learners in tenuous positions, on the margin, as it were. Generally, prior to their participation in the vocational rehabilitation program, the VR learners handled routine problems – life's little emergencies – that cropped up every once in a while. But their lives are more fragile while in school and on public assistance – temporarily precarious – such that what could have been handled before now may prove disastrous, toppling them over the edge.

Before his precipitating incident, Dan's house was paid for and he had money in a bank account. "Then the bad times started," he said. "My checking account went down to zero and I didn't have any insurance." Paul talked about the difficulties of one-earner households: "It takes two people nowadays to survive - it's tough with only one person working." Daryl had several children to worry about; "Toward the end it was whatever we had to do, sacrifices that didn't damage the family. I didn't care. I'd tell bill collectors anything." Ted is more vehement: "It was economic hell," he said, "all the sudden dropping down to one income and a really tight budget. Financially it was a real hardship and stressed out the marriage. I had to borrow money from the in-laws, something you just don't do." Augie listed the types of public assistance he accepted:

I was on workman's comp until July last year, then unemployment, then we had to go on FAIM, basically welfare then, until social security came through. That's what we're living on now; social security and food stamps.... A lot of things suffer: the family, the wife, and my relationship

with the kids. I tried to make every effort I could to make up for that time. It was tough. It still is tough because I'm still going through it now.

Similar to other clusters, this theme is not always negative. Several individuals received substantial settlements several years following their injuries. Seemingly a happy event, the sudden acquisition of a large sum of money served as a different type of stressor or precipitated other events which added stress to their lives. Bruce and his young family lived in a large city in another state. "When they settled my indemnity there was no question. We were getting out of this hell hole, away from Babylon. We were children of the city, ... but it wasn't what I wanted." They moved to Montana to make a new start.

Hidey Hole

The term "hidey hole" came from one of the research respondents. Mark's hidey hole was the safe haven he escaped to when pain and thoughts of his disability were too much for him. Other respondents reported similar private places, their own little worlds, unbothered by the demands of life swirling around them. Three respondents mentioned nothing about depression or withdrawing from the world, not even for a short time. Ten respondents described their emotional separations from reality during their interviews.

Imposed sedentary lives was a complaint of three persons. Paul, the youngest of the research respondents, lamented, "I couldn't do nothing except vege.... I'd dink around the house, wash and fold clothes, go to therapy.... I couldn't have cared if I lived or died. I couldn't do nothing and I couldn't handle it. I got down on it so bad I didn't care." Roger, accustomed to working outdoors, spent a year at home. "I was definitely pulling my hair out over it, too. I definitely had a problem with everything." Elliot says, "I was very

sedentary. I couldn't do very much and sat around the house a lot and drank. There's nothing else to do.... I was depressed. The house can only get so clean." Barry continues the theme of depression. "Depression. You don't want to get out of your own little world. You want to keep to yourself. You don't want anybody bothering you. I did that after my accident but I did that before, too."

Three participants withdrew from life around them. Matt blamed the accident as the direct cause of his divorce. "[It caused] my emotional separation from my family since the injury. Detachment. I was in my own little world." He took 35 to 45 pills a day for pain. "But that was part of my emotional separation from the world, which was because I felt my life had been taken away from me." He later reflected on the significance of his incident to his life. "The hole the 'after' dug for me, the black hole that I fell into is a good reminder of where I've been." Mary talked of her miserable existence. "I lived a complete miserable life. I became a recluse. I never talked to anybody.... I cut myself off from all my family. I became a real recluse." Mark shared the impact of a new found relationship. "She dug me out of my hidey hole basement where everything was quiet and peaceful.... She made me want more than hiding in the basement and sleeping on the couch."

Dan has suffered numerous work and non-work related injuries. His body is battered and "doesn't heal too well" anymore. It's "tired of healing." He described his feelings of self-loathing. "I became what I hated before." He referred to himself as a "sissy. I'm not doing man stuff."

A comprehensive description of the state of mind after a major accident is offered by Dave as his approach to advising someone who had just suffered a career-ending injury.

There's so many things. Somebody in recovery trying to get their life back on line or trying to gather up what they can and can't do. I guess everybody reaches that point of realization of what they can or can't do. It's at that point that you actually start thinking about it. You are no longer just a body in a bed with doctors working on you. You are actually more thinking OK, what am I going to do tomorrow? You're back to setting your life back in motion. At that point they start coming up with a lot of questions.

Dave is quite articulate. He offered additional insight into the difficult time of recuperation following, in his case, an amputated limb.

I used to spend a lot of time redoing the accident. If I had been quicker, if I hadn't been on that bridge, if it had been Thursday instead of Friday, if it had been raining and not sunny. All ifs. You do that for quite awhile. I think it is part of the mental healing to do that. Putting all the pegs back into the holes. Getting everything dealt with. Putting everybody in their little mailboxes. Everything's a scrambled mess until it gets sorted out. A jigsaw puzzle sort of. A state of confusion until you get it all sorted out and looked at. A part of being human.

Dave is one of the few research respondents who did not elaborate on depression or withdrawal from the world. "I got to walk," he said. "I have to learn how to do it. I don't want to be stuck in a wheelchair for the rest of my life. Too many things to do."

These graphic stories demonstrate there is no one initial reaction to significant injury. Reactions are mixed, setting the stage for recuperation events that follow.

Turning Point

There comes a time when inward directed thoughts and feelings of self-pity, anger, frustration and confusion change to outward directed thoughts of action. I could detect these significant times in nine of the interview transcripts. Some statements of change were strong, others more subtle. Five respondents made clear statements. "The lights were

starting to come on.... It was probably the realization that either I get up off my ass and try to do something or I was gonna die," said Matt. Mary was in excruciating pain for years. Then one day, "I decided that if I was going to hurt all the time anyway that by God I was going to do something that I wanted to do. And so what if I hurt?" Ted stated, "I had to pull myself together and say, what am I going to do to get on with my life and to continue with my life." Dave made his declaration while still in the hospital before his discharge. "Too many things to do." Paul's change occurred as a result of a five-day vision quest to his parent's cabin near a lake.

I went on a spiritual quest.... I'd sit on the beach for four or five hours at a time and just think to myself what I wanted to do. I don't know if you want to call it a motivational trip or whatever, but that was the time I decided my maturity level has to change. It's time to grow up.... And the next Monday I went down to the college and filled out my application.

Turning points are not predictable; they may occur immediately following the accident or several years later. The five individuals mentioned in the above paragraph exemplify the wide range of time frames for a turning point. An immediate turning point was reported by Dave; it occurred while he was still in the hospital before he returned home. Ted's turning point was also apparently immediate although his incident was the result of a degenerative process. He had time to adjust to the oncoming situation. Paul spent a year worrying about his condition before he realized he had to make personal changes. Both Mary and Matt suffered in pain and misery and, in Matt's case, anger, for five years before their turning points.

Subtle references to turning point changes were made by three respondents. Elliott referred to major changes he made as a result of the professional counseling services he

received as a resident patient at an alcohol treatment facility. Daryl was ready to make change in his life. He did not expect an accident to serve as a change catalyst, but when it happened, he was ready. Barry alluded to a period of depression and later to the joys of life, but did not speak of a specific turning point.

Equally as important to finding references to turning points are the four transcripts which contained no references to a turning point. One person graduated from school several years ago and does not pay much attention to past events. "I don't look back that much," said Melvin. Of the remaining three, two are individuals with a long history of an active life and numerous injuries, and one is a person still undergoing surgical procedures for his injury.

The HCT Experience

Respondents generally reported their HCT experiences as one of the following themes; personal concerns upon beginning at HCT, a skeptical initial attitude, surprise at the differences from high school, recognition of new skills needed for success in school, appreciation for good grades, and awareness of personal changes made during the two years of school. Personal concerns dealt with fear and uncertainty of something new, the frightening aspect of being older, and wondering whether the decision to return to school was the right decision. Several respondents reported a "try it and see" attitude their first semester. Three VR learners saw several positive differences from their high school experiences; teachers at HCT answered questions and "were better." One respondent was relieved to find the HCT was nothing like his old high school. "I keep going back to high

school and thinking about it and that was my biggest worry that it would be like that.”

Making the dean’s list and getting good grades seemed important. Three learners shared how pleased they were when members of their families expressed pride in the learner’s accomplishments at school.

Personal change was cited as a characteristic of their attendance at HCT. Mary imagined herself in the future reflecting back on her HCT schooling. “I’ll look back at school and say, yeah, I did it. Do you know something? It made me realize that I’ll never stop learning. It’s amazing all the stuff that’s out there. And I’m not afraid to try.” She continued, “School has changed me in another way,” and talked about being less competitive for grades. Elliott was particularly ebullient about school. School “has made me a stronger person.” He was “like a giant sponge” and wanted to “take everything in.” Elliott appreciated the structure that being in school helped redefine for him. “Structure.... I’ve been able to put structure into my life. Get more organized. And I believe what structure brings is perspective....This school will always have a major spot in my heart. A lot of growing up in two years.” Ted tended to be controlling and liked things his own way. “And so it’s been a real challenge for me. I guess this year learning to work more as a team and try to be a team player.” Melvin, a graduate, has benefit of hindsight. He said of his two years, “And the transition from construction to full-time student began A very enjoyable two years.”

Other individuals are not as sure that formal education was their best choice. In his first semester, Dan struggled with daily pain and a body that no longer healed very well. He vacillated between expressing gratitude for being in school and worrying that he was

not in the right place for him. "I believe in going to school but I wonder why I am. It scares me. I can't see getting my degree. I'm wasting everybody's time. They've put in a lot of effort on my part. I can't let them down. Now I'd be letting myself down." Augie, also in his first semester, accepted being in school but would rather be back at his job, working. "I'm starting to enjoy the schooling but I would rather have gone back somehow." Ken, a fourth semester student, had not earned enough credits for graduation, so must return to school for a fifth semester. "I never thought I'd go to college because my dad told me I was too dumb....I hope this will do it for me, but I'm still wondering if I'm throwing my seeds into the wind."

Support

Table 9 shows respondent choices when respondents were asked to select 3 x 5 index cards representing people or agencies most influential in helping them through the period of time from the incident to attending school. Ideas for the initial support choices came from my general knowledge of the VR learners. Each row of the table corresponds to one respondent. The first column represents a first support choice, the second column represents a second support choice, and so on. I used a table display to provide a quick overview of the different support influences. Although six respondents made more than five support choices, only the first five are displayed. The table is organized so that rows containing spouse as a first choice appear first, the three rows beginning with God appear next, followed by two rows beginning with family, and then the remaining four rows. Blank spaces indicate no other choices were made by the respondent.

Table 9. Support Influences.

1 st Choice	2 nd Choice	3 rd Choice	4 th Choice	5 th Choice
Spouse	Family	Myself	God	Friends
Spouse	Myself	Family	Vocational Rehabilitation	Cyberpal
Spouse	Family	God	Instructors	Vocational Rehabilitation
Spouse	Family	Vocational Rehabilitation	Instructors	
Spouse	Family	Myself	Instructors	Vocational Rehabilitation
God	Myself	Spouse	Family	Friends
God	Myself	Family	Spouse	Instructors
God	Instructors	Family	Spouse	Vocational Rehabilitation
Family	God	Instructors	Vocational Rehabilitation	Doctors
Family	Myself	Friends	God	
Myself	God	Family		
Myself	Family	Friends	God	Vocational Rehabilitation
Friends	Family	Myself		
Instructors	God	Family	Vocational Rehabilitation	Myself

All respondents made at least three choices. "Family" is the only selection that appears in all rows. "Myself" appears in 12 rows and "God" was cited by 11 respondents as an important influence during their recovery from the incident and attendance at HCT. Instructors at HCT appeared in nine rows. Only 14 rows representing 14 respondents appear in table 9. One respondent did not answer the question concerning supportive

influences. Respondents were somewhat limited by the choices offered them on the index cards although blank cards were available for adding further options. Two individuals added support choices I had not thought of; cyberpal and doctors.

Changes

Table 10 on the next page captures respondents' reports of life area changes in response to the question, "Please select the [3 x 5 index] cards representing the life areas in which you have made the most important changes through this period [from incident to school]." Each row of the table represents respondent choices. The table shows that individuals experience change in more than one life area. Two individuals, both in their first semester of school, each picked only two areas of change, while all others made more selections. Again, there are fourteen rows of data as one person did not answer this question. The four areas of change most frequently cited were:

1. Career/job (11 entries). I would have expected to see this life area reported by all respondents. The three individuals who did not report this category of change in their response included one graduate and two students graduating two months after the interview. None of them had worked with computers prior to attending the College. I can only surmise they were more intent on other issues.

2. Education/school (10 entries). Changes reported in this category addressed either being surprised at returning to formal school or expressing amazement at their good school performance. "When I made the dean's list last go around [my mother] was very happy about that, and so was I."

Table 10. Life Area Changes.

1 st choice	2 nd choice	3 rd choice	4 th choice
Family	Career/Job	Education/School	Health
Career/Job	Hobbies	Family	Health
Career/Job	Education/School	Health	
Career/Job	Education/School		
Family	Education/School	Religion/Faith	Friends/Community
Career/Job	Friends/Community	Education/School	Health
Education/School	Career/Job		
Career/Job	Family	Friends	
Career/Job	Education/School	Leisure	Hunting
Education/School	Religion/Faith	Health	
Hunting	Friends/Community	Education/School	Career/Job
Hunting	Family	Leisure	Friends/Community
Career/job	Health	Hunting	Family
Family	Health	Leisure	Career/Job

3. Health (8 entries). Health was generally concerned with factors other than physical problems directly caused by their accidents. Elliot reported, "I have my health. I few pounds overweight, but I'm still OK."

4. Family (7 entries). Statements about families concerned making renewed commitments to families and putting family first. Melvin shared, "...a lot more involved, a lot more open ..."

I limited response options to cards I had prepared prior to the interviews. The response options correlated with the life areas reported by Aslanian and Brickell (1980) in

their national study on adults in transition, although I included one non-standard life area card, hunting. I added the hunting option due to my observations of its importance in Montana culture. Blank cards were available. I encouraged respondents to create their own card should my options not adequately represent areas of change for them. In retrospect, I should have included a card with the word "myself" written on it.

The Good Life

Hopes for the future are simple. Both Rogers (1961) and Mezirow (1991) mention the usefulness of discussions centering around the definition of one's good life.

Participants were asked to define what for them is their good life. Their responses, edited into meaning unit fragments for brevity, were:

1. To build a dream home I designed in high school. To be totally healthy again.
2. To be able to pay bills and not have pain.
3. A good job to provide for kids and grandkids.
4. Family and kids.
5. Today is the good life.
6. Family, a soul mate.
7. To look outside and see mountains, and no gun play in front of my house.
8. A loving wife and to be respected.
9. Never getting hurt in the first place; being able to retain my job.
10. Financial independence, to help others, health and family.
11. Making it through school, finding a good job, a family, and to live comfortably.

12. Being happy.
13. Feeling accomplished.
14. Good health for myself and my family; resources to make us happy.
15. To be totally healthy again.

I am struck by the reasonable simplicity of the good life meaning units.

The Incident in Retrospect

The incident and circumstances surrounding it appear to diminish with time. All 15 respondents offered at least one statement in their interviews addressing their incident in retrospect. Statements are grouped by semester of study at HCT; (a) first year, (b) second year, and (c) graduate.

At first glance, it would appear the four first year adult VR learners have not yet had time to contemplate their incident experiences. However, the lengths of time since the first year students' incidents ranged from one year to a high of ten years prior to attending HCT. Roger's incident took place about a year ago. He said, "I've made a lot of mistakes.... This whole accident, it's just a learning process.... The accident was a major crossroad. Because of the accident I went to school and school changed my life. I never would have believed I'd be saying this." Augie found a positive note. "You can't let the incident that happened in the past hold you back, 'cause sooner or later something would have happened where I'd have to change." Dave was less sure. "It gives me more time with my family.... I have enough to worry about." Barry, the oldest respondent in the first year group, saw good from the incident.

This incident made me think an awful lot about things. This incident just taught me a lesson in life that was really invaluable to me. And I settled a lot of issues with people.... I almost died that day.... Life is too short for me to hate or hold a grudge.... It affected my whole life. I never had an incident kick my butt.

Five respondents were in their second year of school; four would graduate at the end of the semester and one would require a fifth semester of school to acquire the needed credits. Their incidents happened anywhere from almost 15 years ago to as recently as three years previous to the interview. Elliott described his thoughts of his incident. The incident

was the final blow of where my life was going to go.... And I think it took that kind of accident to persuade me to take a very good look at my life, what was going on, what was going to happen, and where I was going, because I was going nowhere.... I look at that as a turning point.... My life was pretty crappy earlier.

Mary is older. She reflected;

Well, if I look clear back to where I got hurt, it would be just another thing that happened. Shit happens. It made me a lot stronger person mentally 'cause I couldn't do the things I wanted to anymore. So it was like, not only did it change my life, make a real physical impact on me, it made me more aware of things around me.

Ted was trying to put his life together. He wanted to feel accomplished. "It was an opportunity. It gave me a chance to do something I really want to do. So let's pick it right." Ken was looking for a better future, "It gave me a chance to put a stop to my life. It gave me no choice.... This is going to help me, I know that. So the injuries got me to school and school is going to help me in life." Paul's view on the incident was that it helped him overcome serious obstacles.

I'd say the biggest down in my life is the incident.... It is a tough time in

your life but you will get through it.... A severe injury is traumatic to some people, but you can't get down on it.... Don't let this end your life.... Everybody has changes in their lives. You gotta go with the changes.... Hey, it was one down in my life. I climbed that mountain and got to the top and I came out the other side.... I want to remember I beat my down and now I'm up and happy.

The four graduates - Matt, Melvin, Daryl, and Dave - have jobs and have moved on with their lives. They graduated at least three years ago. Their incidents took place as recently as six years and as long as fourteen years before the interview. Their retrospective insights were particularly welcome. Matt has had the most difficult time of the four graduates. Although his accident and subsequent surgery occurred more than six years previously, he did not start making a recovery until 1997, when "the lights started coming on." As he talked of the past, Matt said, "It was something that happened to me and I'm glad I survived it, that I lived through it." Melvin chuckled as he described how he thinks now of his accident. "I guess when the incident happened, it was like a cold slap in the face of reality saying hey, it's time to get with it and grab life and jump on and ride instead of fighting against it or trying to swim upstream." For Daryl, "it was such a positive change in my life." Dave defined the experience in metaphorical terms. "I've dealt with it enough that it really has no more value than an experience ... it's like a tidal wave. It came, you lived through it, and it's gone. You knew what it was and why it was there and now it's clear sailing."

Textural Descriptions

The following textural descriptions present holistic portraits for three of the 15

respondents: Daryl, a graduate; Mary, a fourth semester learner; and Roger, technically in his first semester. Similar portraits were created for the other twelve VR learners as well. The three textural descriptions are included as examples of the end result of the phenomenological reduction process. As a conclusion to this chapter, the 15 portraits are synthesized to form a composite description of all 15 adult VR learners. The names remain fictitious and some facts have been changed to reduce the chance of inadvertently disclosing the person's identity. However, the descriptions reinforce the notion of the participants as people, not subjects. The 15 textural description portraits created for this chapter's data analysis also were used again in Chapter Six, Transformative Learning.

Daryl's Textural Description

Daryl's early life was spent chasing rainbows looking for good fortune. As a youngster, Daryl developed a work-hard ethic while working in his father's private business. He was taught at an early age that disagreeing with people was disrespectful. He didn't graduate from high school. "I was drummed out of high school ... the accelerated class of 75." He married early, had a child when he was 17 years old, but was unable to settle down. A shortened stint in the military service helped him earn his GED, but returned him to an unpleasant home situation. "My marriage fell apart horribly while I was in there." Soon thereafter his house burned down and he lost a young child, a misfortune to haunt him for years to come. Daryl chased economic fortune to the oilfields, but they too dried up, returning him to a state caught in the throes of a recession, and a fourth child on its way. He turned to the construction industry and found he was a good roofer. Daryl

also turned to alcohol and developed "an unbelievable drinking problem." He quit drinking several years later only to have his second wife leave him. He said he was "still a mess, a huge mess." Daryl describes himself as "a despicable person" during that period of time.

I really couldn't stand me. I was two different people. I was this person in my head - this idealistic person - with all these intentions I had and that's who I thought I was. And I wasn't. This is the person I was. The suit was covering up the real person I was. And the real person I couldn't hide from me anymore was not responsible, was not respectable, was not clean, had a bad mouth, was everything I detested.

Finally, much to his relief, Daryl suffered his career-ending injury. "Undoubtedly it was one of the most positive things that ever happened to me.... I had such a good time with my kids." During the year of his recovery, he rediscovered the joys of fatherhood and made a commitment then to always put his family first. "After I fell and I had all these little faces hugging me and telling me they were glad I was OK, all my priorities changed." Attempting to save his marriage while making good on his renewed commitment to his family, Daryl returned to sheet rocking while still recovering from his severe injuries. "I was relatively certain that if I quit an income source and went to school, that would be the end of my marriage.... Sheet rocking on crutches was insane." He read self-help books and found most of them "really painful because all it did was point out these deficiencies I was already aware were there.... It was like continually pointing out your flaws." He tried to analyze his past "to a fault. I [spent] so much time looking in the rear view mirror I run over today." He successfully sold direct sale products with a nationally known company but discovered it was not satisfying: the company executives "fell hard off their pedestals" when Daryl learned how the business was run behind the scenes. Daryl, a big, well built,

strong man, had always used his physical size on his jobs. But when a job as an equipment technician became available, he grabbed it. Working in non-physical jobs was new to him. He became dissatisfied in his job. "I wasn't happy [there] and wouldn't go anywhere." He started thinking of going to school. "It was obvious I had to do something. I didn't have any skills." He briefly considered attending the Great Falls Vocational-Technical School (as it was called then) but changed his mind. At the suggestion of a friend, wary and skeptical, he entered the Helena College of Technology in 1993, enrolling in the computer technology program. "I didn't know anything about computers and thought I may end up hating this."

Daryl entered school "and was still uncertain.... My self-esteem was really crippled after all that.... I was afraid of everything." He wondered if he was wasting his time. One semester was his deadline for knowing whether his decision to return to school was the right one for him. Daryl did well in school. "I felt like a success here. The people around me did that and it helped drive me and make it easier to study. After I did more than was expected of me it was cake to stay ahead. It was a great experience." Upon graduation, Daryl had several good job opportunities. "One of the biggest things I learned at school was that anything out there that I didn't know how to do, I could learn how to do it. Either I'll learn before they need me or while I'm there but I'm not intimidated by that." In retrospect, Daryl reflects of his time in school, "It was very positive being [at school], maybe the second most positive thing in my life."

"Liking me," says Daryl, "is one of the primary things" that he cherishes today that he did not hold important before his accident. He defines a metaphor that describes his life

as “under construction.... That’s my goal. Every day improving.” He looks at life as “through a spring day. That it’s exciting and it’s new and it’s warm and it’s bright.

Everything is happy and come alive.” He has an excellent job with good career potential, the envy of other HCT graduates. Daryl says he has changed in several areas of his life; family, education/school, religion/faith, and friends/community. His faith has evolved and remains solid. His friends used to be people who needed him at a vulnerable time when he “needed to be needed.” He now chooses for his friends people he believes “are very good for me.... I try to pick friends that will help me grow.” His family is primary to him today. “All of my decisions are, how will it affect my family?” Daryl sees for his good life “financial independence ... and to be able to help people that genuinely need help.”

Looking back on his accident, Daryl says, “The accident fits in with the relationship I have today with my kids.... That’s why it happened. I don’t know what would have happened if I had not fallen. The relationship I formed with my kids is priceless.” His advice to others who have just suffered their career-ending injury?

It’d be hard to contain my excitement because it was such a positive change in my life... I would tell them to take advantage of the time. Don’t get so wrapped up in worrying about tomorrow. There’s X amount of healing time and there’s nothing you can do more productive than keeping your attitude up and spend it with your kids. Have a good time with this; not a vacation, but the time off that you have. You’re not going to do anything except close doors by working yourself into a depression and worrying about what the future holds, and ... if you do that you can see the doors that are open that you will not see otherwise. If you get wrapped up with my life is over, how can I go on, all these things will shut the doors. There’s a ton of doors open if only we can see them for what they are.

Mary's Textural Description

Mary describes herself as "the woman who loves too much." She has always enjoyed working with people and has thought of herself as a caregiver. Religion was not a family value when she grew up, but Mary sought solace in a community church every chance she could. She would "sit there for hours" as other kids went off to school. "I did a lot of things as I was growing up that I'd sure like to change. But I learned from them and I hope never to repeat them."

She married young to an abusive husband. After two children and an unpleasant marriage, "My ex-husband did a real good job on me," so she "got rid of him." Mary has "always been a worker, always will be a worker," and instilled work values in her own children. She taught her children self-sufficiency: "They both know how to shoot, they both know how to fish. I used to do everything with my kids. They know how to camp. They could survive in the wilderness." She made all their clothes.

In 1978 Mary received her Licensed Practical Nurse (LPN) degree and soon accepted a job at a local hospital. She enjoyed working with people. But in 1983, while assisting another nurse with turning a large patient, she "sprung everything in my back from my neck to my coccyx. Separated the ligaments between my shoulder blades. Did a real good job on myself." She "was laid up for six months" and returned to work "with no neck on my left side. I was so swollen, the left side of my face goes dead." In very graphic terms, Mary describes the five years following her injury.

Miserable.... I was so miserable in my life I can think of nothing but miserable, I was in such pain. I went to the doctor every three months. I got injections in my back. I was on medications, all the way from Tylenol

three. I was just really miserable. Like nobody cared. You know it was like let's treat the symptoms and forget the problem. In the five years [I] could tell you three days that I didn't have pain. And I think two of them were because I was drunk and couldn't feel it. I was in constant pain. I would go home and cry myself to sleep every night. I was miserable. I lived a complete miserable life. I became a recluse. I never talked to anybody. I went home and slept. I got up, I went to work, I got home and I slept. I cut myself off from all my family.

Mary was unable to lift, a job requirement as an LPN, so accepted another position in the same hospital. She continued under doctor's care for several years but management was unhappy over her infrequent but long absences for medical treatment. In a huff, Mary quit in 1988. "So I quit, which was a bad mistake, because I was covered.... It was really stupid.... I jumped. I screwed up the rest of my life."

Also that summer in 1988, Mary had a major turning point. "And that summer I decided that if I was going to hurt all the time anyway, then by God I was going to do something that I wanted to do." She finished the summer panning for gold. "I don't know what the difference is. For some reason, maybe my stress level or something like that, [the pain] is ... not incapacitating me anymore, 'cause I guess I was doing it to myself." She remembers, "... by me being miserable it was making everybody who was around me miserable. I couldn't stand to see the people around like that. So put a smile on my face and shut up."

From 1988 until 1996, Mary worked in jobs dealing with people. One of her jobs exposed her to computers. "I had a deathly fear of computers and I decided since I wasn't doing anything I might as well learn how to run a computer." She enrolled in an adult learning class and discovered, "I could do this!" The instructors there suggested she might

be eligible for vocational rehabilitation benefits. Mary recounts, "You're so debilitated that voc rehab will probably pick up your bill." She was delighted to be accepted into the Montana Vocational Rehabilitation program and chose computer technology as her area of interest.

"It was all new and strange for me, you know. I really had a fear of computers and I learned a lot more about them than I thought I ever would.... They're not the big monster I thought they were." During her two years at HCT, Mary overcame more than just her fear of computers. "I'm reading on who I am. I'm also known as the woman who loves too much. Like I take on everybody else's problems on myself. It's a thing I've tried to change about myself.... School has helped me there." She talks of confronting a friend with whom she has lost contact. "I've done it [confronting] more here at school." Mary has what she calls "a stoic ... look.... people always think I'm angry.... I've tried more often to have a smile on my face." Grades were important to Mary until an emergency took her away for several weeks in the middle of the school semester. "School has changed me in another way.... I'm not competing with anybody..." When asked to describe the importance school will have had in her life, Mary responded, "I'll look back at school and say, yeah, I did it. Do you know something? It made me realize that I'll never be done learning.... It's amazing all the stuff that's out there."

Mary describes her relationship with her husband as "decent.... He's my best friend." But the last two years while she has been in school have introduced a new strain on their marriage. "Oh, I speak my mind more.... I've started voicing my opinion more in the last two years." She adds with a chuckle, "My husband don't like me no more." She

says her husband is "going through an identity crisis." Mary works hard at her studies. "I come home and I kind of ignore him because I do homework." She concludes, "School's changed me.... I am more independent. Yes, I am more independent."

Mary cites other changes since her 1983 back incident. Speaking of the incident, she talks of how it affected her physically; "It's like that changed my whole life. I'm not the person I was. I don't have the strength." She has always enjoyed sewing and quilting. "I used to be real artsy and crafty.... I don't do that anymore.... It kills me to sit [hunched over]." She continues in a more positive vein. "Not only did it change my life, have a real physical impact on me, it made me more aware of things that happen around me.... So I became more tolerant of people ... So maybe some good came out of [the incident]."

What does she cherish today that she did not hold important before her incident? "My health." She describes other areas of her life that have changed since her incident. "I used to hunt all the time and I can't hunt any more. I can't carry a gun." She wonders about studying the field of computers that characteristically are a non-people type of occupation.

You know people always want to know how you define yourself, who are you. Well, I am the caregiver. I have always been the caregiver. And I'm changing. Not only am I no longer trying not to take care of everybody. That says a lot about the change in me.... So now I'm gonna become a computer person.... I'll work with [the computer] but I'll still have a life.

Mary recognizes the many changes she has made. She also recognizes the influence and support that have been there to assist her. Change is still occurring; "I still don't know what I want to be when I grow up." Her family, spouse, and belief in God have been important to her.

School has "really put me far behind." She hopes for a day when she no longer has bills looming over her. "It's really been tough living on \$171 a month." The emergency set her behind another "\$15,000," as she has no insurance. "I'm so far behind now I'll never catch up." She hopes for a life "not having any pain or no headaches."

Mary offers her advice for someone else who has recently suffered a career-ending injury.

To not let it get in the way of their life, 'cause there's a lot of people who do that. I could have done that, let the back injury ruin my life.... So my advice to them would be that they need to find an interest in their life and jump on it. They have to find something that they want to do and not let the pain completely rule their life. Pain is a terrible thing to live with. I know it. There was a time in my life my pain was so bad I wanted to die. And somehow that came under control. Don't ever let pain get hold of you like that. And there's lots of different ways out there to break the pain cycle. I'd just have to push them. But whatever you do, don't let pain rule your life or it'll ruin your life, and it will. Find something you want to do.

Roger's Textural Description

Roger is a young man attending his second semester of school. He earned 11 credits his first semester, so does not have the 18 credits he needs to be considered a full-fledged second semester student. But keeping up with a normal credit load is not foremost on Roger's mind.

... like this Mayo Clinic thing. I've been fighting over it for ... ten months between when I first asked for it and when we finally had to threaten to go to court over it.... I mean this is terribly important to me.... I can't just stop and listen to everybody saying well there's nothing, absolutely nothing. You're gonna have to live with [your injury] the way it is. On the 24th I'm scheduled to go down there and they're gonna look at it. They'll just give me some peace of mind.

All his previous work experience has been outdoors. "... being outside and doing

all that work was wonderful. I really liked it.... and I thought it was going to last.” He married his long time girlfriend. But the logging job didn’t last. “We ran out of wood.” By then he and his wife were in serious financial trouble. “I used to claim that chapter 13 was the only way to get out [of debt] because I owed so much money.” Then he found a good job with good benefits. “... the benefits were wonderful, the people out there were nice, [and] the pay was good.” Seven months into that job he suffered his career-ending injury. “I was loading up some iron into a skip and my elbow popped. And that’s all I can say about it. My fingers went numb and I couldn’t lift anything and I couldn’t squeeze anything. Just a total nightmare.”

It never occurred to Roger that he would ever have to consider a different vocation. But he was thrust into that dilemma three months after his injury.

After I got operated on they assumed it would take three months and I would be able to go back to work. After three months they decided I was still in a lot of pain.... They did some evaluations on me and found out I was ... Well, up until the evaluation I was pretty positive I would be able to go back to work and everything would be OK. But when the evaluation took place they told me that sedentary work was the only thing I’d be able to do. They asked me how long I could sit around and what kind of things I liked. At that point is when I really started getting scared.... since I’ve gone to high school I’ve gone through life just worrying about what I liked. I mean, I was logging and I thought it was going to last.... But when I was posed with the question, what to do next, I was really really confused.”

The ensuing year was not a good one for Roger. “I wasn’t doing anything. I was sitting at home ... pulling my hair out.... I definitely had a problem with everything.” And everything was a “big ball of confusion.... things are so confusing and disorganized.... I try to keep things organized but there’s so much going on.”

He sought professional counseling. Upon his counselor’s advice, Roger talked to

the counselors at the vocational rehabilitation office and subsequently entered HCT. "It was the toughest [decision] I think I ever made.... I've never held myself as a very intelligent person." He associated computers with math and "math is my least favorite subject." He was scared. "I admit I shouldn't have been as scared as I was, but I was out of school for long enough to make me scared.... I keep going back to high school and thinking about it, and that was my biggest worry that it would be like that." Roger agreed to

try it out, and if I don't like it I'd just leave and try to figure something out.... I was not expecting anything like ... I've never gone to school and wanted to get good grades. I always just wanted to get through school. Now I want good grades and to try to understand as much as I can.... It never occurred to me that I might like it.... the teachers here are better than I would have imagined.... That's why I am still here and I want to be here. It's because they're making the learning process a lot easier for me.

There remains lingering doubt whether the decision to return to school for the technology program is the right decision. "Even now I'm still wondering if it was the right choice.... I thought of giving up a few times." On the other hand he says, "... now I'm kind of heading in a direction I want to be in ..."

Roger says he cherishes education today. "Making it through [HCT]" is an immediate goal, and "finding a job that fits what I'm learning and I'm interested in." He cites two areas in which he has made changes; job - "I've always been in physical labor jobs" - and school - "I never expected to go to school or to like it." His spouse has been his biggest supporter followed by his family, the counselors at the local vocational rehabilitation office, and instructors at HCT.

"The accident was a major crossroad" in my life, says Roger. "Because of the

accident, I went to school, and school changed my life. I never would have believed I'd be saying this."

Composite Textural Description

The 15 individual portraits and their horizontal meaning units formed the basis for deriving the following composite textural description portrait of the adult vocational rehabilitation learner at the Helena College of Technology.

The adult vocational rehabilitation learner at the Helena College of Technology in the Computer Technology program is typically married - more often than not male - accustomed to working outside in physical labor jobs. The worker may be struggling somewhat to make ends meet but is making independent life decisions and generally getting by. A career-ending injury, probably occurring on the job, inextricably alters the worker's life. "Life as I knew it ended that day." The injured individual has no choice but to operate within the very systems he or she has disdained, distrusted, or had been taught would be available as a safety net, a kind of workers' cushion when the need came. "A lot of frustration at how slowly the system was moving along as far as resolving the issue." The systems are many: the medical establishment, insurance companies, workmans' compensation, lawyers, social service agencies, vocational rehabilitation, and the postsecondary institution. The injury thrusts the worker and family into a whirlwind of officialdom, often reducing the injured worker to dependency on others for basic bodily functions, food, comfort, and financial assistance. "I was basically on workmans' comp, then unemployment, then welfare, until social security came though. That's what we're

living on now, social security and food stamps." The challenge is to struggle out from dependency to autonomy once again.

The initial reaction to the injury varies, depending upon a variety of factors. Often the victim closes up for a period of time into a "hidey hole," a safe comfortable haven from the confusion and responsibilities of the world beyond. "The black hole I fell into is a good reminder of where I've been." It is as though one's life-world collapses like a deflating balloon to drape comfortably and closely around the body. "You don't want to get out of your own little world. You want to keep to yourself. You don't want anybody bothering you." Then slowly, like a moth emerging from its chrysalis, like a black and white silent movie slowly assuming color and sound, the life-world expands to encompass more of the activities surrounding the individual in the center. "She dug me out of my basement and made me want more." The individual must decide whether old methods of coping with the world will be effective in dealing with the imposed catastrophic situation.

It is a new world of physical limitations and creative adaptations to different ways of living. "It's funny how you adapt to things." Significant others may perform heretofore private ministrations to the body. "My wife wiped my butt when I got off the commode." This is not a time for false modesty. Pain becomes an unwanted friend, always there, ready to manifest itself upon a wrong move, an improper twist of the body, or prolonged position. Drugs dull the effects of the pain, though drug side effects simultaneously dull cognitive and emotional processes. "I was stoned all the time. Foggy. Talk about a short term memory loss, I had no memory." Deteriorating health from sudden inactivity results in gained weight, atrophied muscles, or increased general sickness, like colds and flu. "My

activity level has dropped off. I'm getting sick now...."

For many, the incident serves as a two-edged sword, "compounding the crap" in their lives while bringing relief from a life "going nowhere real fast." For others it is a major – even catastrophic – disruption. "I could only think of what had been taken away." Multiple issues demand attention: sudden loss of income, dealing with the bureaucracy of social service agencies, change in spouse's role, stress in family relationships, moving away from friends and community, children adjusting to new schools, decline in recreational pursuits. "Financially it was a real hardship and it really stressed out the marriage." Events unfold in harried, unorganized fashion. "Things are so confusing or disorganized. I think they are but they're really not." The injured worker tries mightily to make sense of the jumbled-up jigsaw puzzle, to "put the pegs back into their little holes." Previously buried demons resurface to wreak havoc on attempts to create order out of chaos. "I did not respect my mother for the longest time. A lot of resentments." A dichotomy rears its head: the conflict between the fiercely independent Montana worker and the inner need for support and encouragement from family and friends. The worker often feels alone. "I was really miserable, like nobody cared."

Somehow, since it is not built into the system, the injured worker finds his or her way to vocational rehabilitation services and applies for assistance. "Somebody told me about it." The vocational evaluation proves to be a sobering moment; sinking realization sets in. "A doctor told me I had the body of a volkswagen." VR learners later reflect appreciatively of the frank – even brutal – honesty of the vocational rehabilitation counselors. Working together with the counselor to develop a plan of action restores a

sense of efficacy. Whether to pursue a two-year degree at a college of technology, now that is a monumental question. "The only way they would help me go to school is if I was doing something that fit into my evaluation. The final decision was the toughest one I think I ever made." Previous school experiences may have been unpleasant. "My biggest worry is that it would be like high school." Education beyond high school is not necessarily a family value. Old wounds - "You're too dumb to go to school" - inhibit risk taking. Intervening years since high school prompt questions concerning the ability to learn. "I figured that I'm too old." A wary, skeptical, frightened, anxious, wounded construction worker registers for school in the computer technology program.

The initial prevailing attitude of returning VR learners is, "try it and see." Fortunately they express surprise at the differences from their high school experiences. Instructors answer questions, there is a caring atmosphere, a learning center provides additional support, and there are other students about their same age. "I never would have thought I'd start liking it." The returning VR learner is scared, confused, disorganized, hopeful, doubtful, angry, impatient, embarrassed, guilty, and ashamed. "When I started school here I was afraid of everything. I thought it was a huge mistake." Once again the game has changed: previous rules no longer work. "Crippled self-esteem" and lack of confidence characterize the VR learner. He or she desires control but is thrown into a dependent situation once again, one of the many paradoxes of adult education. The first semester is tough, no question about it. "I should say the first month really sucked." Mental cobwebs are cleared away as the new learner tackles math, relearns how to read, take notes, study, endure tests, work with others, sit indoors for five hours a day, and

become reacquainted with the language and atmosphere of a formal educational institution. "All the sudden in order to get your job done you have to clean up your act and change your lifestyle and everything else in order to get this done. That was kinda neat. It was interesting."

School brings order and structure, and "structure brings perspective." The VR learner revels in using mental processes again. Commitment to learning "inspires daily enthusiasm," brings purpose, and "makes me feel like a person again." VR learners are often unsympathetic to whining complainers. They are pragmatic, preferring to spend their time on issues of relevance to their lives. They have no time to waste but on the other hand, don't want things to move too fast or too much to be crammed into too little time. They are intolerant of poor teaching practices or instructors displaying inadequate people skills. Sitting is difficult for two reasons; first, they have been active all their lives and are unaccustomed to inactivity, and second, their injuries may make it difficult to sit for very long. "By 4 p.m. I'm tired and I hurt." They ask for understanding when assuming unorthodox sitting or kneeling positions, especially in keyboarding class. Overall, however, they are surprised and excited to be learning again and particularly to discover that computers "aren't the monsters" they once feared. "Computers are just machines."

Possibly, just possibly, school will result in a brighter future, in a career rather than another job in a long line of jobs. "Like I said, I'm thinking career. I'm not just thinking job." There comes a time they no longer identify themselves as laborers. The incident and run-ins with the system begin to recede into the background. The VR learners look forward to what is coming rather than behind them to the unpleasantness surrounding the

incident. They are motivated, set tentative goals, begin to think of a good life for themselves and their families, acquire a sense of purpose, realize there are things to do, a life to live. Self-confidence is enhanced, self-esteem returns, the future looks brighter. "It was very positive being here (HCT), maybe the second most positive thing in my life." The rough edges are faceted, revealing the diamond hidden within.

Composite Structural Description

The composite structural description is constructed by employing imaginative variation with the composite textural description. Its basic structure comes from the themes created from clustered meaning units. The structural description describes *how* the research respondents as a group experienced being a vocational rehabilitation learner.

Words or short phrases in quotes come directly from respondent narratives.

The experience of a vocational rehabilitation learner begins with physical pain. The body has suffered damage and reacts to its immediate distress with acute pain, signaling a need for attention. Medical intervention and "cadillac drugs" may arrest the pain for the lucky few. For others, the pain persists; incessant, unrelenting. Concentration is difficult. Remaining in one position for too long is more than uncomfortable; it can be near intolerable. For the majority, after a while, pain recedes into the background, always there, quietly lying in wait for a wrong move or a twist in an improper direction. Chronic pain syndrome dogs the unluckiest. Pain begins its daily torment upon awakening and remains until the final thought before a troubled sleep. Attention to life's demands comes second to dealing with the ever-present hurt. Alternative medical treatments may provide relief.

Alcohol and illegal drugs may also help. Anything to stop the pain.

Psychological pain follows physical pain. Thinking functions slow down, maybe even coming to a near halt. The world is a ball of confusion, disorganized, moving too fast, a kaleidoscope of swirling images and cacophony of sounds. A personal hidey hole offers safe haven from the turmoil. Keeping up is emotionally exhausting; *trying* to keep up is just as emotionally exhausting. It is easier to curl up in the comfortable recesses of the mind in a sort of mental fetal position. It may not last long. For some, emotional detachment is a fleeting luxury. Life awaits. There are things to do, people to see, and places to go. For others, the hidey hole is too enticing. They linger for days, weeks, months, or even years in their private little space.

But the day arrives that beckons the victim to emerge to the bright light of day and to shrug off the temptation to return to the hidey hole. The victim's life-world expands to take in those who are closest. As confidence builds, the life-world also grows, enveloping family, friends, and other influential supporters.

Confidence is needed to meet the next set of challenges; the bureaucracy of institutional systems. If the injury victim works at a job protected through workers' compensation (WC), ideally the WC system kicks into gear in time to shield the worker from a barrage of bills. For a few, the workers' compensation system is responsive; it provides a welcome life preserver at a time of critical need. Ideally the medical professionals treat the victim with compassion and concern, encouraging the victim to regain functional use of the damaged body part. Ideally the worker need not dread the "terrible triangle" of pain, fear of being turned in as a fraud, and the WC support system

itself. The injured worker, once an independent, decision-making, self-directing adult, maybe a parent and spouse, needs temporary assistance through unemployment, welfare, or foodstamps, to weather the impending bad storms on the horizon. It is embarrassing, demeaning even, to have to ask for public assistance to get over this little hump in the road of life. Too many public servants do not practice the tenets of the word, servant. And too often attorneys are needed to represent the injured worker in the very system established to protect him or her. Beliefs in institutions are shattered.

Whether money is potentially plentiful or absent, it causes financial stress. Any prospective settlement is years down the road. Meanwhile, the injured worker must get through today, and tomorrow. Bills go in two piles; one for those to be paid this month and the other pile for those that can be safely delayed while minimizing adverse affects on the family. In this tangled web, the non-working spouse may be forced to assume a little-used role of head-of-household while the customary breadwinner battles the systems. Relationships become strained.

In this period of physical, psychological and sociocultural stresses, unsettled dormant issues, exacerbated by the crisis situation, rise for attention. The injured worker confronts old resentments, anger at past abuses, medical maladies secondary to the career-ending injury, and mental or emotional disturbances. Often professional counseling assists the worker to grapple with personal demons, to understand them, and tuck them away where they no longer impede progress.

Referral to vocational rehabilitation is haphazard, most often accomplished by word of mouth from friends. There is no coddling in the counselors' offices. There is care

and empathy and most important, hope and opportunity. Having successfully met eligibility requirements, the injured worker works with the rehabilitation counselor to establish a plan of action. The driver in this interaction is the worker, not the counselor. It is the worker's plan, not the counselor's plan. The intent is to restore a sense of self-efficacy in the worker. A panoply of options is available. The worker must decide whether returning to a formal educational institution is a best choice. The decision is not easy. For many, unpleasant memories of secondary education place barriers to hesitant thoughts of wanting to go to school. There are grave doubts about the ability to learn again. And there may be longing for the previous, physical, outdoor job followed by a reluctance to acknowledge a new life working indoors. And shame. For those who measured themselves by the toughness of the task or the flash of their fists, indoor work is "sissy" work. These thoughts mill in the background. Often encouraged – pressured, some would say – by family and friends, the injured worker enters the Helena College of Technology.

The commitment is tentative. The first few weeks of school present a crucial test. The worker is ready to bail out at the first sign of something not right. But faculty and staff keep removing excuses; paperwork is achievable, equipment is available to accommodate physical problems, tutoring shores up cognitively weak areas, instructors are friendly and answer questions. The worker is usually surprised to find other adult students of the same age, or older. It doesn't take long for the worker to be "hooked" into remaining at school.

The first semester is rough going as the injured worker, now vocational rehabilitation (VR) learner, learns the institutional language and acquires skills to get along

in the new setting. The second semester becomes easier as the worker acclimates to the environment, though the courses get tougher. The VR learner is often surprised to care about achieving good grades, and even more surprised to find parental and family recognition of the grades are important.

Challenges remain, however. The VR learner has myriad issues to manage, all conspiring to disrupt the return to school; on-going medical treatments, medication, pain or discomfort, simply sitting so much, secondary physical conditions, legal hassles, financial strains, changed family roles and responsibilities, a second job.

Support is vital. Spouse, family, friends, vocational rehabilitation counselors, instructors at school, and belief in God all appear frequently in statements of supportive influences. The injured worker-temporarily-turned-student recognizes and appreciates the efforts of all the people in his or her life-world who have contributed to making a bad situation better.

Numerous changes occur beginning with the time of the career-ending injury and extending through the two years of school. The accumulation of content knowledge is important as the VR learner absorbs as much as possible in the chosen field of computers. However, retrospective reflection shared by graduates concentrates more on personal and life changes than the subject matter. Horizons have broadened, a previously black and white world assumes shades of gray, high risk activities are cast aside for family time, and the VR learner is less self-centered and starts liking him or herself.

The good life is no longer a dream. It is an achievable reality and the VR learner preparing to graduate HCT feels on track to living his or her good life.

The Essence of their Experiences

The final step of the phenomenological model integrates the composite textural and structural descriptions of the respondents' experiences, providing a synthesis of meanings and essences (Moustakas, 1994). The purpose for the integration is to weave texture and structure together (from the textural and structural descriptions) and organize the qualities and themes into the universal essences of a vocational rehabilitation learner.

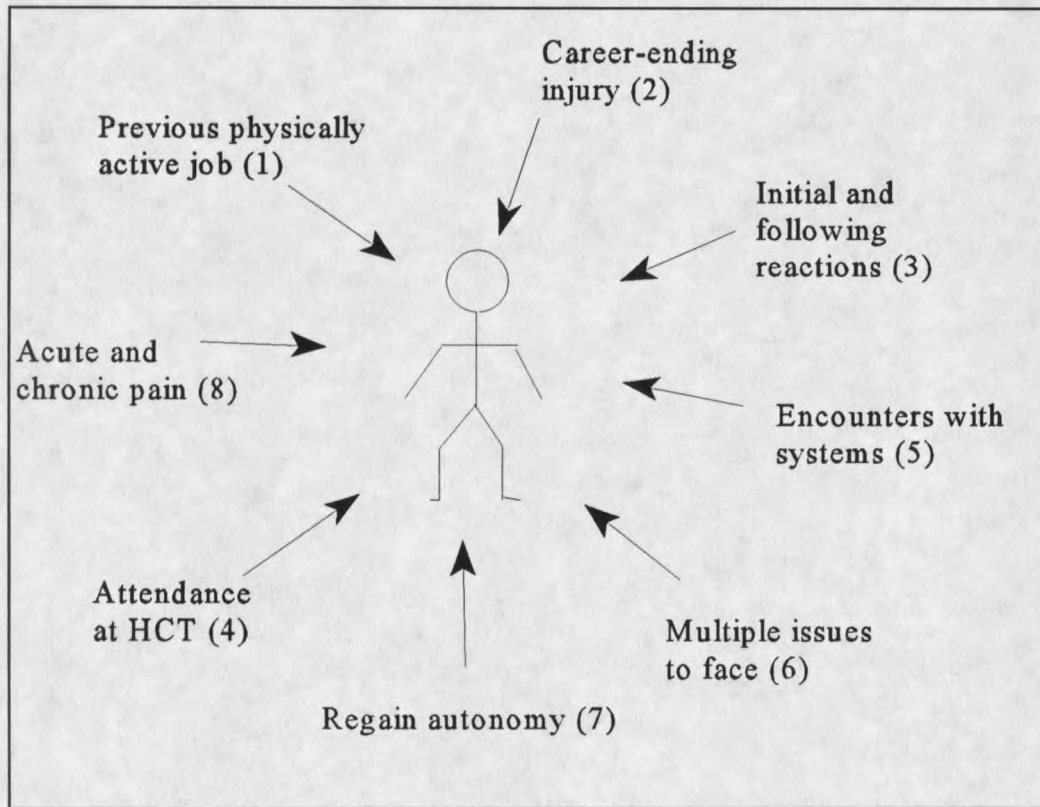
In essence, eight core themes define the experience of the vocational rehabilitation learner at the Helena College of Technology. Each of these is briefly defined below in numbered paragraphs corresponding to the numbers in parentheses. The essences were derived by bringing together sub-themes from the composite textural and structural descriptions. Figure 4 on the next page graphically captures the eight core themes surrounding the VR learner.

1. The VR learner at HCT once performed physically demanding job tasks. They defined themselves by their abilities to perform physical work. When physical work is no longer possible, they often don't know what to do. The importance of this characteristic is further manifested in the classroom setting. Sitting for long periods of time – whether time is measured in terms of the 50-minute class period or the five hours of classes taken in a typical day – is difficult.

2. A career-ending injury forced the worker to make major decisions regarding his or her future. At a time of great vulnerability, the injured person must reassess their likes and dislikes, abilities and goals, past experiences and beliefs about the world, and make

vital decisions concerning the rest of their lives. The necessary decision is especially difficult because it typically places the family in a two-year period of stress as the injured individual attends school.

Figure 4. Vocational Rehabilitation Learner Core Themes.



3. Initial and following cognitive, affective, and behavioral reactions vary widely by individual. Where some injured individuals bounce right back, ready to tackle life again, others withdraw from activity around them. Cognitive reactions range from thoughts of “my life is over” and not caring whether they live or die, to “this is one of the best years of my life.” Affective reactions include anger, anxiety, uncertainty, devastation, depression,

and relief. Behaviorally, respondents reacted by withdrawing, engaging in alcohol or drug abuse, “vegging out,” “digging” for information, or re-engaging with family.

4. Attendance at HCT is the outcome of one of those tough decisions. The first few weeks of school are critically important as the VR learner decides whether to follow through with the decision to return to a formal education environment. The VR learner is uncertain, anxious, scared, doubtful; there are many hurdles to overcome. The first semester is tough for many. But once the VR learner is “hooked,” school becomes a welcome routine, “inspiring daily enthusiasm,” where learning and growing take place.

5. On the journey from incident through attendance at HCT, the recovering worker is forced to deal with many systems. The experience with bureaucratic officialdom may be positive but is typically trying to the point of being negative. Previously independent people feel demeaned by accepting public assistance, if only for a short time.

6. While at HCT the VR learner is faced with multiple issues. Issues of immediacy include: change of role relationships in the family, handling of finances, perceived need for a job outside of school, encountering deteriorating health conditions secondary to the precipitating injury, and the many concerns involved with moving from one community to another. Issues of long standing include: unresolved anger, maladjustive behaviors, mental or emotional difficulties, or previously undiagnosed physical conditions.

7. Where acute pain began the VR learner’s journey, chronic pain tags along afterwards. Most VR learners continue suffering chronic pain during their time at HCT. Incidental to the chronic pain is medication to reduce the pain. Pain and pain medication effect learning and motivation. Individuals in pain are intolerant of wasted time,

uncomfortable with prolonged sitting, and have trouble concentrating or retaining material.

8. The recovering worker, once an independent citizen, having descended into situational dependency by the incident, is now ascending to new autonomy on numerous fronts: personal physical capabilities; newly-acquired job skills applicable to a different sector of the labor market; economic self-sufficiency; self-reliance rather than dependence on social assistance; and ability to learn for a lifetime.

Summary

In this chapter, I have attempted to answer the question, "What does it mean to be a VR learner?" Fifteen research respondents willingly shared often intimate details of their lives, allowing me a glimpse into their life-worlds. I have attempted to accurately capture the essence of their experiences and, through rhetorical choices, narrate their experiences to the reader.

Phenomenology unites meaning and essences. Continuing with the concept of intentionality, Moustakas (1994) reminds us that "Whatever shines forth in consciousness as I perceive it, reflect on it, imagine it, concentrate on it, is what I attend to – that is what stands out as meaningful to me" (p. 92). The eight essences I derived from the 15 respondent narratives represent the meaning of their collective experiences. I hope the reader will end this chapter saying, "Yes, I do understand better what it means to be a VR learner."

CHAPTER SIX

TRANSFORMATIVE LEARNING

Introduction

This chapter describes the personal transformative learning experiences of the adult vocational rehabilitation (VR) learners at the Helena College of Technology. Research respondents described their experiences in response to semi-structured interview questions (Appendix C). Questions three through thirteen of the long interview were specifically designed to elicit personal reports describing an aspect of transformative learning. Interview questions were thematic: a general theme for each numbered question actually encompassed several sub-questions. For example, the theme for question number three, "awareness," had the following sub-questions designed to elicit responses related to an individual's epistemological perspective: (a) How do you deal with something you don't understand? (b) What do you do or say when you don't agree with something? (c) Has this changed since your incident? Other questions were similarly constructed.

Transformative learning is a personal construct. Research into transformative learning involves finding a way to gain access to the personal meaning schemes and perspectives of the research participants (Mezirow, 1990).

Research in transformative learning focuses upon the process of rationality - of how reflective thought, discourse, and action come into being and

what their consequences are. It confines itself largely to limited rather than universal claims. Judgments made by the researcher depend upon examples from the experiences of the researcher and others rather than agreed upon representative samples of universally-agreed upon categories, as in positivist research. Examples are analyzed, but no analysis is final or complete; new data, new contexts, and new perspectives make every judgment or belief provisional. This type of inquiry, like the learning processes being studied, takes the form of questioning claims, examining evidence, assessing arguments, and examining possible interpretations through discourse rather than arriving at a single final certainty through hypothesis testing and deductive logic.

(Mezirow, 1991, p. 222)

My challenge was to carefully read participant interview transcripts searching for evidence of personal change leading to broadened worldview. The overarching theme of transformative learning is that changed attitude, opinion, or belief results in a transformed meaning scheme; changes in a constellation of beliefs or opinions results in personal emancipation through perspective transformation (Mezirow, 1991). Old meaning structures for making sense of the world are replaced by new frames of reference. One's sense of self, one's meaning-making apparatus, one's worldview or perspective is restructured, often to accommodate a disorienting dilemma (Courtenay, Merriam & Reeves, 1998).

Indicators

Two periods of time in the lives of the vocational rehabilitation learners seemed especially conducive to transformative learning; the time following their incidents, and the time of beginning school. At these events of possible significant stress, old ways of making sense of new experiences were put to the test. Eleven of the research participants were in

school at the time of the interviews and had not had benefit of hindsight. They were yet in the midst of the action. The four graduates purposely asked to participate in the research study provided retrospective reflection on their vocational rehabilitation and school experiences several years after graduation. For them, the action was complete. The first event, the incident and how the VR learners made sense of that experience, was defined in Chapter Five, Making Sense of their Experiences. The description of their experiences surrounding their career-ending injuries provides context for the event of interest in this chapter, entering and attending post secondary school.

Personal narrative evidence of transformative learning encompasses statements alluding to (a) actual change in habits or beliefs (“I no longer drink and drive.”), (b) the rational process of making change (“Oh yes, I reflect a lot.”), or the extra-rational, more intuitive process of making change (“No, I’m not a reflector. I made the jump and I’ll live with the choice ‘til it’s over.”), (c) affective indicators such as anger, joy, and frustration (“I was scared. I didn’t know what to expect.”), (d) questioning assumptions or beliefs (“I found out [workers’ compensation] started for the people. Now it’s for the employers.”), and (e) providing insights to distorted meaning schemes (“I never thought of myself as intelligent.”). Indicators do not necessarily mean transformative learning is occurring; they are simply indicators that it *may* be occurring. Whether transformative learning is occurring depends on the context of the learning situation.

As explained in Chapter Four, Methodology, the search for evidence of transformative learning involved a four-way analysis for each participant. The four-way analysis included: (a) holistic, contextual consideration of the textural descriptions (b) a

search for transformative learning (TL) threads; (c) a comparison of transcript statements with Rogers' (1961) descriptors; and (d) a review of the changes reported by the respondents in answer to interview question number ten or at other locations in their interview transcripts.

A TL thread is made up of two or more meaning units related by their reference to an indicator of the transformative learning process. For example, one young man said that earlier in his life, before the incident, he "hated to read; was not a reader." But now he loves to read, believing that knowledge gained from reading "is not exactly power, but it is important." Those two meaning unit statements make up a simple thread probably related to transformative learning. A TL thread might support one or two of Mezirow's (1991) ten steps, or Courtenay, Merriam, and Reeves (1998) five stages of transformative learning.

The final two methods for looking for evidence of transformative learning were simpler. Using Rogers' (1961) eleven descriptors as a guide, I looked for transcript statements explaining or documenting the descriptor. The last method involved reviewing VR learner responses to question number ten asking about changes in their lives.

Example horizontal meaning unit statements relative to transformational learning are listed below. The list includes one horizontal meaning unit from each transcript. The two-letters of the alphanumeric code are included to show how statements could be traced back to their original context in the interview transcript.

1. KK184 "I used to think computers were stupid, and that's all changed."
2. FF111. "Because that's not the way to be, so I didn't punch him out."

3. AA343. "That I'm educated, that I'm getting educated. It's real important to me. I never figured I would ever do it. I never thought I'd go to college because my dad told me I was too dumb."

4. BB93. "And read....It's a funny thing, too. I've never been a reader ever in my life, and I love to read now."

5. HH114. "Confidence boosters. There were two things at the vo-tech that did that. That was the big change, opening me up to dig out of a rut and turning me loose on a different track. And the confidence you needed to continue on. Now look at what I'm doing!"

6. SS203. "Through all of this one of the lights at the end of the tunnel is knowing that next week or next year through learning how to grow and reflect I'll be a better person. I can honestly say I haven't lost my temper for a year and a half, which is incredible."

7. EE118. "I just think that I'm more at ease with myself which allows me to be a little more at ease with others around me. Probably a little - [chuckle] I shouldn't say a little - a lot better person to be around."

8. PP195. "I had to learn to lighten up. I'm learning that now with my children."

9. JJ186. "I do not drink and drive. I still enjoy my beer, but I do not drink and drive."

10. MM246. "I've always been in physical labor jobs. Networking will be a change for me. I never expected to go to school or to like it."

11. FF329. "If I had to say I looked at life through anything, it would be through a

spring day. That it's exciting and it's new and it's warm, and it's bright. Everything is happy and come alive."

12. NN182. "I mean going from being out of doors and [describing his job] ... and being on my feet all the time to something that is more indoors and, it's just a whole swap from one way of life to a whole 'nother way of life."

13. GG224. "[pointing to time line before his incident] This is one life and this [pointing to school] is another life. They have nothing to do with each other. That day I [he describes his incident], my whole entire life changed."

14. LL213. "For me, the incident was the beginning of my life. Everything before was a challenge. It got more intense and demanding. But life began here [pointing to the time line after the incident]."

15. CC184. "It's just that I'm more independent. Yes, I am more independent."

Horizontal meaning unit statements evidencing transformation could have been clustered in any of several ways: (a) by type of epistemological, sociolinguistic, or psychological meaning perspective (Mezirow, 1991); (b) by instrumental, communicative, or emancipatory learning domain (Mezirow, 1991); or by (c) content, process, or premise reflection (Brookfield, 1987; Cranton, 1994; Mezirow, 1991). I chose to place meaning units visually in a time line for each individual. Meaning units were thus temporally relative to one another, allowing me a holistic perspective of the individual's life.

In the following three sections, I detail a four-part analysis of the experiences of three vocational rehabilitation learners: Daryl, a graduate of the computer technology

program three years ago; Mary, a fourth semester student preparing to graduate in two months following her interview; and Roger, technically a first semester student with only 11 earned credits, but in his second semester of attendance at HCT. An analysis technique different from the descriptive approach in Chapter Five, *The Meaning of their Experiences*, was used in this chapter, while trying to remain true to the phenomenological method. Analysis moved beyond pure description to an interpretative approach. Interpretation was required to subjectively examine respondent statements regarding transformative learning in light of my own knowledge and experiences.

Sample analysis - Daryl

This section describes a sample four-way analysis searching for transformative learning using the textural description I created for Daryl shown beginning on page 127 in Chapter Five, *The Meaning of their Experiences*.

Daryl's Textural Description - A Holistic Perspective

Daryl is one of the four graduates purposely asked to participate in this study. His textural description is viewed by considering the personal frames of reference - his self-reported meaning perspectives - as he moves from one time period to the next past the two critical events. At the time of his incident and then again as he entered school, what was Daryl's worldview? What were his cognitive, emotional and behavioral responses? What evidence indicates transformative learning after the event?

Daryl's Incident. Just before his incident, Daryl had quit drinking, his wife left him,

he was working ten jobs, and he had already made “a tremendous amount of personal changes.... I made a bunch of personal commitments ... that if I ever got the chance to get back my family and my kids it was going to be different.... I always knew somehow that I would go to school.” Seven or eight months later he suffered his injury. He was unhappy with himself and the grief he had caused his family. He was ready for change. “I thought well, you wanted to get out of it but it’s not quite what I had planned.”

Daryl’s incident was a relief for him; it ended his not knowing how to proceed next. He admits that for the first six months, “I escaped by crawling into my kids and going on lots of picnics and stuff. Any time that I did give it much thought it was pretty frightening.” His wife returned. Trying to hold their marriage together, Daryl chose to return to earning an income through sheet rocking rather than attend school.

It appears Daryl was caught in a tug-o-war between maintaining his marriage and attending school. He was in the midst of making personal changes but had not changed his worldview as to what he needed to do to save his marriage. The work ethic he had learned as a youth remained strong; working more hours and making more money was his method for keeping his wife and children together as a family.

Daryl at School. Eight years had passed since Daryl’s incident. During that time, he gave up his direct sales business, in frustration read self-help books, and non-productively over-analyzed his past, yet his second wife left him for good, taking the children with her. He wasn’t happy at his equipment technician job. Once again someone urged him to visit with vocational rehabilitation counselors and go to school. This time he thought it would be “cool” to read books and start learning. He was ready.

Cognitively and emotionally, Daryl was ready for school, and he followed through with positive action. He had recently married and had regained custody of his children. Dubious at first, he flourished in his computer technology studies. During school, his first priority was his family and his second commitment was learning about computers. He secured a top job upon graduation and is on his way to achieving his good life. He looks at life now "as through a spring day." The Daryl who graduated from HCT is not the same Daryl who entered its doors two years previously.

Daryl's TL Threads

Numerous TL threads run through Daryl's textural description indicating before and after themes. Example TL threads include: "drummed out of high school" followed by "earned GED" to "earned a two-year degree" makes up a three-part TL thread; "played around a lot" to "the family comes first" constitutes a two-part TL thread; and "overly dependent friendships" changed to "friends now by choice" is another two-part TL thread. Thus, specific personal changes can be discerned from connected meaning unit TL threads running through Daryl's interview transcript.

TL threads, categorized by Mezirow's (1991) three types of meaning perspectives, in Daryl's textural description include:

1. Psychological (self-concept, locus of control, lost functions)
 - a. crippled self-esteem - good self esteem
 - b. low self confidence - new found confidence
 - c. saw himself as despicable - now likes himself

- d. didn't believe in himself - running on his own power
 - e. believed disagreement is disrespectful - disagrees without becoming personal
 - f. fearful of confrontation - ready to meet issues head on
2. Sociolinguistic (social relationships, culture, roles, and language)
- a. avoided family responsibilities - first priority is his family
 - b. two troubled marriages - third stable, happy marriage
 - c. needed friends who needed him - chooses friends who are good for him
3. Epistemic (knowledge, judgment, awareness, cognitive/learning styles)
- a. drummed out of high school - GED - AA degree
 - b. previously learned physical job skills - proven ability to learn
 - c. no knowledge of computers - expert knowledge of computers

Comparisons with Rogers' Descriptors

Rogers' (1961) list of descriptors includes eleven examples for how a person might make significant personal changes. Relevant descriptors are repeated below along with statements from Daryl's textual description supporting the example.

1. He sees himself differently. Daryl is a husband, father, and a professional on a good career track. He is no longer the despicable, unclean, mad, angry, disgusted, sarcastic, ugly person he described in his interview.
2. He accepts himself and his feelings more fully. "I started liking me."
3. He becomes more self-confident and self-directing. "One of the biggest things I

learned at school was that anything out there I didn't know how to do, I could learn how to do it."

4. He becomes more the person he would like to be. Daryl responds, "Every day improving.... That means I feel I am a better person today than I was yesterday, and yesterday I was a better person than I was the day before. Hopefully, tomorrow I'll be better. That's my goal, every day improving."

5 He adopts more realistic goals for himself. Daryl defines his good life as "Financial independence, first off. And that's not any particular sum of money. It's just not having to answer to a boss.... To be able to travel and see things.... To take my family places and give them experiences that they may not have had the opportunity to have."

6 He behaves in a more mature fashion. Daryl has assumed family commitments and responsibility.

7 . He changes his basic personality characteristics in constructive ways. He is confident, sure. His reflection and critical reflection are constructive, positive.

Daryl's Own Statements of Change

Daryl claims he has made significant life changes in several areas; family, education/school, religion/faith, and friends/community. His family is now his primary focus. School is the second most positive thing in his life; he has a two year degree. His belief in God has evolved more powerfully for him. He now chooses friends who are good for him. And most important, he now likes himself.

Summary of Daryl's Analysis

The four-way analysis of Daryl's life since his career-ending injury shows a much changed individual at the end of the ten years. Evidence of transformative learning in all three meaning perspectives is solid. The incident by itself did not appear to hasten the process, although it set the stage for an inner dilemma concerning school. Not until several years later when his second wife left him did Daryl take steps to enter school. Daryl discovered he enjoyed learning and was an excellent student. In fact, studying and learning came easy to him. He simultaneously maintained the family he had wanted for so long. He capped off his two years at school by obtaining a good job. He now feels he is on his way to achieving his good life.

Sample analysis - Mary

Mary will graduate at the end of this fourth semester. Her textural description appears on page 131 of Chapter Four, The Meaning of their Experiences. The four-way analysis explained in this section is similar to the analysis process conducted for Daryl.

Mary's Textural Description - A Holistic Perspective

Mary's textural description is viewed by considering the personal frames of reference – Mary's self-reported meaning perspectives – as she moves from one time period to the next past the two critical events. At the time of her incident and then again as she entered school, what was Mary's worldview? What were her cognitive, emotional and behavioral responses? What evidence indicates transformative learning?

At the time of her incident, Mary was doing the work she loved; working with people as a caregiver. She had a secure job with good benefits. She had just been baptized several months previous to the incident in a family ceremony. She loved to do “artsy crafts” activities and took pride in her beadwork and fur products. She was a huntress. There are “things” about her childhood she wishes she had not done and she hopes not to repeat. During a previous marriage she had learned to “keep her mouth shut.” She defined herself as a worker, “always a worker.”

Mary's Incident. Mary was so severely injured at her job that, despite trying to return to work, she was unable to perform her duties. Her injuries were devastating to her and the pain was intolerable. She turned to alcohol, turned away from family and friends, and became reclusive. Her life was miserable. Management found her an alternative job but she quit in a huff over disagreements of her job performance.

Following her incident, Mary shut down. Cognitively, her misery and pain consumed her. She was emotionally devastated. She responded by withdrawing from family, becoming reclusive. She remained withdrawn and in pain until one summer five years later.

Mary at School. Mary experienced a significant turning point the summer she left her job when she decided that if she was going to hurt all the time, then she might as well do something she wanted to do. Chronic pain remained but she was in control. The pain was no longer incapacitating. Eight years after she conquered her pain, Mary was exposed to a personal computer at her job. She feared the machine, not knowing anything about it. Upon leaving her job she enrolled in an eight-week course to learn Wordperfect.

Subsequent events led “the woman who loves too much” to HCT.

Mary was ready for school: “Well, I could do this!” She was delighted to discover her eligibility for vocational rehabilitation benefits and, in characteristic fashion, jumped at the new opportunity that opened up for her. She did well in her studies. She credits school as the catalyst for the many personal changes she has made.

Mary’s TL Threads

Transformative learning (TL) threads run through Mary’s textural description and transcript. TL threads connect meaning units identified for their relevance to Mary’s experience and that serve as possible indicators of transformative learning. Example TL threads in her transcript, grouped by type of meaning perspective, include (meaning units are separated by a hyphen):

1. Psychological (self-concept, locus of control, lost functions)
 - a. takes on the world’s problems - doesn’t do other peoples’ work
 - b. stoic, angry look - tries to smile and joke more
 - c. cowered, brow-beaten - independent, voices her opinion
 - d. abused alcohol - no longer abuses alcohol
 - e. consumed by pain - in control of her pain
2. Sociocultural (social relationships, culture, roles, and language)
 - a. closed mouth - speaks her mind more
 - b. a loner - learned to work with others
 - c. cowered, brow-beaten - independent, voices her opinion

3. Epistemic (knowledge, judgment, awareness, cognitive/learning styles)

- a. will never be done learning
- b. had deathly fear of computers - computers no longer scare her
- c. more aware of things going on around her

Comparisons with Rogers' Descriptors

The relevant descriptors from Rogers (1961) are repeated below along with statements from Mary's textual description supporting the descriptor example.

1. The person sees himself (*sic*) differently. Several times during her interview, Mary recounted "and here is another way school has changed me." She sees herself differently.

2. He becomes more self-confident and self-directing. She realizes she will never be done learning. She's "not afraid to try stuff." She doesn't "have to have anybody else around me."

3. He changes his maladjustive behaviors. She no longer drinks. She has conquered her pain.

4. He becomes more acceptant of others. She is more aware of the world around her and more tolerant of others.

5. He is more open to evidence. Mary listens and talks to others to gather ideas. She is amazed by what all is "out there." She practices critical self reflection to learn more about herself.

Mary's Own Statements of Change

In her interview, Mary cited numerous ways in which she has changed. She no longer "tries to take care of everybody." She has confronted people "more here at school." She has a greater appreciation for her health. She is more independent.

Summary of Mary's Analysis

Mary has made numerous changes since her incident in 1983, changes that are recognizable through analysis of her textural description and changes acknowledged by her. The primary changes appear to be in the psychological and sociolinguistic meaning perspectives although I assume Mary accumulated significant new subject matter content. Most illuminating of her changes are her own statements, "I am more independent. I voice my opinion more."

Sample Analysis - Roger

This section describes a sample four-way analysis searching for transformative learning using Roger's textural description shown beginning on page 135 in Chapter Five, The Meaning of their Experiences.

Roger's Textural Description - A Holistic Perspective

Roger never thought he would have to be concerned about his career. He was performing the physical labor he enjoyed and no longer worried about his future employment. He had accumulated significant debts and was unsure how he would pay them off. He had also committed "a lot of stupid mistakes" that he hoped never to repeat.

He recently wed his girlfriend of four years. For less than a year, Roger made decent wages, had good benefits, and enjoyed his fellow workers.

Roger's Incident. Roger's injury was serious. But for the first three months following the accident, he thought he would soon return back to work. Sobering realization hit when he was told he could no longer use the arm as he had until the accident, even to the extent of suggesting he change dominance from right to left hand. He was told there was nothing more that could be done. Roger's immediate reaction was confusion and disbelief. Cognitively, Roger went blank, experiencing mental numbness. He had no idea what to do next or where to even go. His emotions included panic, devastation, and anger. Behaviorally he withdrew, stayed at home, "pulling his hair out," and "had a problem with everything."

Roger at School. Roger wasn't sure about attending school. His previous experiences had not been pleasant. He equated computers with math, his least favorite subject. Roger felt too much time has passed since he left high school. He was "scared," worrying HCT would be similar to high school, but agreed to give it a try. He took a tentative, light course load his first semester. Much to his amazement, Roger discovered he liked school, computers, and the teachers.

Roger's TL Threads

TL threads in Roger's textual description and original transcript are less definitive than for Daryl or Mary. However, there appears to be more change in Roger's first semester than for either of the other two. He arrived at HCT with a very narrow view of

school and with personal barriers that could have prevented him from remaining at school.

TL threads (meaning units are separated by a hyphen) include:

1. Psychological (self-concept, locus of control, lost functions)
 - a. just wanted to get through school - now wants to get good grades -
feeling better about it
 - b. scared, uncertain - kind of heading in the right direction
 - c. never held myself as a very intelligent person - started with a light load -
actually liking school
2. Sociolinguistic (social relationships, culture, roles, language)
 - a. faith in the system - not much faith in the system
3. Epistemic (knowledge, judgment, awareness, cognitive/learning styles)
 - a. belief in workers' comp system - realization of how it works
 - b. belief in doctors and lawyers - sober reality of how it works
 - c. life was determined - future looked dismal - life was questionable -
future looks better (4-part TL thread)

Comparisons with Rogers' Descriptors

Rogers' (1961) list of descriptors includes eleven examples for how a person might make significant changes. Relevant descriptors are repeated below along with statements from Roger's textual description supporting the example.

1. The person sees himself differently. He had always seen himself as a laborer. He did not expect to go to school nor especially to like it. With thoughts that he is "kinda

heading in the right direction," he is beginning to see himself differently.

2. He becomes more self-confident and self-directing. At first accepting of the diagnoses of others, Roger firmly demanded a qualified second opinion, seeing and rejecting six doctors and firing lawyers until he found advocates for what he wanted.

3. He adopts more realistic goals for himself. Roger is dealing with his injured arm. He has reassessed his initial goal of returning to heavy physical labor to finding out more about his injury and to discovering more about computers and networking.

Roger's Own Statements of Change

Roger's statements of change are simple, straightforward. The changes he acknowledges are in the career and education life areas. Throughout his transcript he mentions other areas of change, predominantly concerning being in school and expressing relief HCT is not like the high school he attended many years ago.

Summary of Roger's Analysis

At the time of the interview, it had only been a little over a year since Roger's incident. His subsequent battles with doctors and lawyers and the workers' compensation system were fresh on his mind. His paramount interest was to obtain a qualified second medical opinion concerning his arm. Roger was in the midst of the action, still reacting, without opportunity to reflect on the chain of events. Although little time had elapsed, Roger had already experienced significant transformation related to his concept of school for adults and his place in an educational institution. His view of school had broadened considerably and now includes him in the picture.

Composite Summary Description

Summary descriptions, similar to the three previous summaries, were completed for all fifteen VR learners. I then created the following composite summary description characterizing the collective transformative learning experiences of the group. I used an analogy of a personal tool-kit. The tool-kit seemed appropriate in light of the vocational setting to describe the attitudes and mindsets of the VR learners.

Vocational rehabilitative learners have experienced career-ending injuries but maintain the potential to return to work upon retraining. The injuries occurred as long as ten or more years previous to their entry to the Helena College of Technology (HCT) or as recently as the previous year. The precipitating incident, followed one to many years later by entry into formal schooling, were two events which shared significant status in their lives, creating two opportunities for transformative learning.

In this study, the two critical events were encountered with fifteen individual frames of reference made up of each person's accumulated experiences, attitudes, and habitual ways of doing things. Each individual possessed a personal tool-kit of habits, beliefs, judgments, and opinions for making meaning of their world and for handling new situations. The first new situation, the career-ending incident, was unexpected for most individuals. Their tool-kits contained the customary tools for interpreting their worlds that had worked well until the incident. Some tools worked, some did not. The second event, attending school, was somewhat planned. They had had time to throw out tools that no longer worked, acquire new tools to meet new challenges, exchange old tools for updated

tools to meet the anticipated situation, or refurbish tools for the future task.

The career-ending incident served as a profound test of personal meaning-making processes. Continuing with the tool-kit analogy to describe meaning-making, some injured workers found their tools adequate and appropriate for the emergency situation. Some tools may have required honing, but for the most part, their tools served them well. Others possessed personal kits lacking the necessary tools to assist them through internal and external events caused by their career-ending injuries. Some sought professional assistance to replace unuseable tools with tools that worked. Others reshaped their own tools through personal reflection, prayer, going on a vision quest, or some other yet unexplainable process.

The decision attendant to enrolling in school similarly stressed the use and functions of individual meaning-making tool-kits. In this case, however, the fifteen respondents had time to assess the situation and make changes to their tool-kits prior to arriving at school. Some kept the old tools close at hand, ready just in case the tools would be used again. As time passed, however, the tools carefully laid to the side eventually accumulated dirt and rust, never to be used again.

Individual tool-kits evolved during the two years of vocational school. Tools resided in three main compartments of their kits, labeled epistemic, sociolinguistic, and psychological. The epistemic compartment swelled in size to accommodate the vast accumulation of new knowledge and skills. Epistemic tools related to reflective judgment, maturity level, and scope of awareness also changed character. Sociolinguistic tools were reshaped to handle new roles, work with people of different backgrounds and values in the

school situation, and to learn a new language of technology. Psychological tools probably changed more than the other tools, particularly the tools of self-concept, self-confidence and esteem, self-efficacy, and tolerance for ambiguity. VR learners brought with them apprenticeship tool-kits upon entering HCT; two years later, they depart with upgraded journeyman tool-kits.

Summary and Conclusions

I agree with Mezirow's (1991) statement that it is difficult to gain access to the meaning schemes and perspectives of the research participants. My four-way analysis, though perhaps cumbersome, provided some insight into the meaning-making processes of the 15 individuals. The transformative process varies for each VR learner, depending upon their personal context, their personal frames of reference for making meaning of their worlds, and the many issues with which they are faced. Rather than 15 separate, linear processes taking place, I see their transitions as braids of multiple transitions occurring for each person.

Typical areas of recognized growth or changed perspectives included the following: (a) epistemic, particularly in terms of progressing along the reflective judgment scale from pure black-white reasoning to now seeing shades of gray, and in terms of gaining new knowledge in a completely new career field; (b) sociolinguistic, regarding family relationships and getting along with others; and (c) psychological, by meeting and overcoming tough challenges, and increasing self-esteem and confidence.

Research respondents were divided into three categories (please refer to table 4 on

page 61) depending on their semester of enrollment at HCT. Six individuals were in their first year of school, five were in their second year and fourth semester of school, and four had graduated several years before their interviews. Evidence of completion of transformative learning was more comprehensive in the graduates and second year students than in the first year VR learners. Graduates and second year students were able to cite specific examples of changes they had made. Graduates additionally had worked in their new careers for at least three years, thus could more fully assimilate their new found identities as knowledge workers rather than physical laborers. They could look back on their experiences and make sense of what had happened to them and how they had negotiated the troubled waters of change. One graduate, however, had not accepted his injured state until more than two years after graduation. During the interview he fully and openly talked of his difficulties, yet his experience shows that the transformative learning process is not necessarily complete upon graduation for all VR learners.

Second year VR learners had new hopes and, except for one, positive aspirations for their yet-to-be-tried futures. They articulated specific examples of change, particularly personal change in terms of increased self-esteem and confidence. In the protected environment of school, they had tested their new knowledge and skills, but they had no way of knowing how they would perform in their new roles and new jobs.

The first year students evidenced being in the uncomfortable neutral zone in the midst of change. One first year student, Augie, was in his first semester. He accepted the fact he had to make change yet he desperately wanted to return to his old job. Although he said his new life in Helena was "a whole swap" from his previous life, he had not yet made

changes in his worldview. He continued to identify himself with his previous life. Dan and Bruce have yet to accept a new way of life indoors working with state-of-the-art computer and network equipment. Several weeks before his interview, Dan related how he had not punched someone out "because it was not the way to be." The world to Bruce was still black and white though he admitted that perhaps a shade of gray may have recently shown itself. Two others expressed appreciation for being accepted into the vocational rehabilitation program. Throughout the transcripts of the first year students, there was evidence of disorientation, cognitive dissonance, disequilibrium, anxiety, and generally being unsure of their futures.

Support from spouses, family, friends, counselors at the vocational rehabilitation office, and instructors at the Helena College of Technology, played an important role for the VR learners. All 15 respondents cited the importance of having others there to help them through the tough times. I was particularly impressed with the many other issues the VR learners encountered during their attendance at HCT. Significant change occurred in several life areas other than career/job or education/school.

Pain remains the un-explored factor. The effect of pain, pain medication, and personal management of pain, were included among the essences of the VR experience. Pain did not figure prominently in 14 of the four-way analyses, yet predominated in one case. It appears pain lingers in the background, manifesting itself indirectly through cognitive, affective, and behavioral responses.

The 15 VR learners were in various stages of transition, generally – but not always – corresponding to their year of attendance at HCT. As the respondents talked of the

significant changes they had made while in the vocational rehabilitation program and during their attendance at HCT, they did not dwell on book knowledge or subject matter content. Their responses concerned life changes, the changes in their individually-constructed life-worlds. Perhaps mastery of subject matter content provided them an impetus for enhanced self-confidence. The second year students and graduates had indeed learned marketable skills. But what they talked about was how they had made personal changes. How they had grown or developed. How they had matured. How they were different from the VR learner who first entered the doors of HCT. And they appeared pleased and proud of those changes.

CHAPTER SEVEN

SUMMARY, IMPLICATIONS, AND CONCLUSIONS

Brief Summary of My Study

This qualitative study was (VR) learners in the computer technology program at the two-year Helena College of Technology (the College). The research questions are; (a) what does it mean to be a VR learner?; (b) does transformative learning occur?; and (c) if so, under what circumstances and with what effects?

In Chapter One I presented an autobiographical sketch explaining my interest in the subject of VR learners. Also in Chapter One I briefly described my philosophical basis for approaching a human science research effort. Retired from a career in the active Army, I now teach at the College. A portion of the adult student population at the College are VR learners funded through the Montana Vocational Rehabilitation (MVR) program. Observing these learners in my classes and talking to them about their experiences in the MVR program has piqued my curiosity to learn more about them. Furthermore, I became personally interested in vocational rehabilitation after our adult son suffered severe, career-ending injuries in a motor vehicle accident. My experience with our son coupled with my associations with VR learners in school has fueled my passion to learn more about what it means to be a VR learner. My approach to the study was constructivist. I

was interested in learning more about how this particular population of people made sense of their life-worlds.

Chapter Two detailed my search of the knowledge base for information relevant to four main themes; vocational rehabilitation, adults in transition, transformative learning, and pain. Rehabilitation professionals at the local, regional, and state levels freely shared with me details of the MVR program. I learned the processes individuals must follow from initial determination of eligibility to final close out of their case. In the transition literature I learned there are many theories of transition. Commonalities among these theories are that transitions are a normal process in adulthood, they occur in stages or phases, the length of time and sequence of the stages vary due to many factors, and individuals react cognitively, emotionally, and behaviorally to the event triggering the transition. I learned that transformative learning theory is a contextual-based theory of adult development. Fundamentally it is a theory of how adults make meaning of their life-worlds. A trigger event or disorienting dilemma sets the process in motion for individual transformation culminating in changed meaning schemes or transformation of meaning perspectives. Transformed perspectives are emancipating. Pain, I learned, is the unknown factor. It can inhibit or enhance the process of transformative learning.

In Chapter three, I defined the conceptual model for my phenomenological study. Major tenets of Husserlian-based phenomenology include epoche, bracketing, experience, and intentionality. Epoche is the act of suspending judgment. Bracketing means to focus only on the subject at hand, placing personal biases, judgments, assumptions, and opinions off to the side. Experience and presence are the physical and non-real objects presented to

consciousness. Intentionality means that as something is presented to consciousness, emotion and feelings are automatically evoked and cannot be separated from the awareness of that something.

My study processes were influenced by Moustakas and Giorgi. Moustakas offered the methodology and manuscript format and Giorgi delineated differences between descriptive phenomenology and interpretive phenomenology. I employed a descriptive phenomenological approach to Chapter Five, *The Meaning of their Experiences*, and an interpretive phenomenological approach to Chapter Six, *Transformative Learning*.

Chapter Four described the methodology for this study. As MVR and academic records concerning VR learners are confidential, I devised an indirect means to reach the population of adult VR learners. I used two primary selection criteria to reduce the number of research volunteers from 31 to 11: (a) one, they were enrolled in the computer technology program at the College; and (b) two, they were MVR program clients due to a career-ending injury as opposed to disease or mental problem. I purposely asked four graduates of the computer technology program to join the research group of 11, bringing the total number of research participants to 15 VR learners.

Data for the study came primarily from in-depth, semi-structured interviews. I reviewed the interview transcripts searching for meaning units. Abstracted meaning units were combined to form clusters, and clusters were grouped together to form themes. I developed textural descriptions and time lines of each research participant. At this point, the methodology divided into two paths; a descriptive approach and an interpretive approach. The fifteen individual textural descriptions provided the common basis for

continuing on the two different paths.

I followed the descriptive phenomenological approach to search for the meaning of their experiences. I first created a composite textural description laden with respondent quotations. I then developed a structural description using the emergent themes as the basic structure of the VR experience. The final step resulted in a short description synthesizing the essence of the VR experience.

I used interpretive phenomenology to search for evidence of transformative learning. Using the 15 textural descriptions already created, I conducted a four-way analysis of each individual by (a) reviewing the textural descriptions from a holistic perspective; (b) defining transformative learning (TL) threads running through the descriptions; (c) comparing meaning unit statements with Rogers' descriptors; and (d) considering respondents' own statements of change. I summarized the four-way analysis for each respondent and combined the results into a composite summary of the VR learners' collective transformative learning experiences.

Chapter five elucidated the textures and structures of the VR experience. I found eight structural properties of the VR experience: (a) previous physically active jobs, (b) career-ending injury, (c) pain, (d) reaction to the injury and later reaction to entering school, (e) dealing with many systems, (f) personal issues, (g) the school experience itself, and (h) regaining autonomy.

Chapter Six defined the VR learners' transformative learning experiences. Respondent experiences differed dramatically but all respondents were somehow changed by their career-ending injuries and by their attendance at school. The VR learners who

graduated from HCT were not the same VR learners who tentatively entered the College two years previously.

In this final chapter of my dissertation, I summarize my findings of the meaning of the VR experience and evidence I found concerning transformative learning and compare my findings with other findings in the literature. I discuss implications of my study to the staff and faculty of the Helena College of Technology, the VR learners themselves, and to other professionals who work with VR learners. I discuss the limitations of my research and how I might approach a similar project in the future. I offer ideas for future research, developing one suggestion to some detail. Prior to the conclusion, I offer criticisms of Mezirow's theory of perspective transformation.

Comparing and Distinguishing Findings with Prior Research

The purposes of this phenomenological study were to describe the meaning of the vocational rehabilitative (VR) learner's experience and to search for evidence of transformative learning. VR learners were selected for the study because I was personally interested in their experiences. I also selected VR learners to study because I reasoned they had suffered a significant shock to their lives and would employ transformative learning processes to make sense of their lives. My primary aim was to study transformative learning. But to do that properly I first had to understand the meaning of the VR experience.

There is scant literature concerning vocational rehabilitation learners who are not handicapped or disabled. I was unable to find relevant research directly concerning adult

vocational rehabilitation learners. The prior research I found most useful for my study came from transformative learning research. As discussed in Chapter Two, Literature Review, Taylor's (1997) review of 17 years of research studies of transformative learning produced 39 total studies. Only three of the 39 studies included purpose statements indicating relevance to my own research. Unfortunately, I was only able to find a report from one study; "The Centrality of Meaning-Making in Transformational Learning: How HIV-Positive Adults Make Sense of their Lives" (Courtenay, Merriam & Reeves, 1998). I also obtained a copy of Mezirow's original research report, "Education for Perspective Transformation: Women's Re-entry Programs in Community Colleges" (1978), and a report of Janoff-Bulman & Morgan's (1994) study on victims' responses to traumatic life events. I compare findings of my research with results of each of the three studies, above.

Courtenay, Merriam & Reeves interviewed 18 adult men and women to determine how the research respondents constructed personal meaning upon learning they tested positive for the HIV virus. The authors defined a process of meaning-making that "involves a period of initial reaction to the diagnosis, a catalytic experience that sets into motion the meaning-making process, and three distinct yet interrelated phases of reflection and activity" (p. 65). Their study was relevant to my project because of the impact of the diagnosis on the HIV-positive adults, an impact in some ways similar to the impact of a career-ending injury. In both studies, a disorienting dilemma profoundly affected the adult respondents. The emphasis in their study, however, was *how* the 18 adults made sense of their lives, whereas the purpose in my study was to understand first, what it means to be a VR learner, and second, what were their transformative learning experiences. Courtenay,

Merriam & Reeves did not seek to understand what it meant to be an HIV-positive adult; they sought to define the process by which the 18 adults made sense of their lives upon learning their diagnoses.

One of the eight structural essences derived in my study was “initial and following reactions” to the incident or to entering school. This seems to compare with the “initial reaction” period reported by the authors. They expressed surprise at the varying lengths of time of the initial reaction, and criticized Mezirow for failing to adequately address “the intense emotional reaction to a disorienting dilemma” (p. 77) I support their criticisms based upon the findings of my own study that delineated the vast range of time and variety of strong emotional reactions to the incident. Courtenay, Merriam & Reeves attribute the range of emotional reactions to personal context at the time of the disorienting dilemma. My research supports the importance of personal context as well as the importance of the myriad other issues facing the VR learner.

The three authors defined a catalytic experience as an event that helped their respondents begin to view their worlds in a new way. This may correspond to one of the eight essences of the VR learners’ experience I called the turning point. Courtenay, Merriam & Reeves found there are two types of catalysts that help facilitate the change event: internal and external catalysts. Internal catalysts, they found, had to do with self. The individual made the decision to begin accepting the need to change. External catalysts came from outside the individual, such as from spouses, family, friends, significant others. They found dialogue, the opportunity to talk with others, is an important factor to adjusting to the new situation. Respondents in their research sought out support groups.

Although I did not describe their experiences from that perspective, I agree that the many support influences reported by my research respondents, along with other narrative concerning their changes, can be divided into internal and external catalysts. In one of the focus group sessions, the subject of support groups was raised. It was thoroughly trounced as a whining or gripe session. The focus group participants in my study, unlike the participants in Courtenay, Merriam & Reeves study, did not react favorably to the idea of support groups. Perhaps that is a cultural reflection of Montana independence. Perhaps it is a difference in people accustomed to living around others in the big city versus the VR learners who are more comfortable in the small town environment. On the other hand, several of the VR learners reported receiving assistance through professional counseling, some of which included group work. In one case, Elliot reported the positive help he received through group therapy at a residential alcohol treatment facility. In another case, Matt bitterly described his exposure to a support group. I am unable to draw a conclusion at this time other than to question the effect of formal support groups on VR learners.

On the other hand, support groups need not be a formally defined entity. Many authors (Cranton, 1994; Brookfield, 1987; Daloz, 1986; Mezirow, 1991) cite the need to establish a classroom climate which helps to foster transformative learning. The research respondents did not expressly talk about safe or supportive learning environments though they did talk about enjoying school or being appreciative that HCT and its instructors were not like their previous school experiences. Perhaps the classroom supplants the function of a separate VR learners support group.

Courtenay, Merriam & Reeves also found a three-phase process of transformative

learning, called meaning making in their study, that included: (a) exploration and experimentation; (b) consolidation of new meaning; and (c) stabilization of a new perspective. I found similarities with Mezirow's ten-step process of perspective transformation. The three authors found a sub-phase activity they called "service to others" to be important to their HIV-positive respondents. I did not find a similar theme in my study. The VR learners were focused on their futures as it applied to themselves or their families. Passing courses at school was an immediate priority for the VR learners.

As I compared the HIV-positive adults student with my own, I was surprised to find no references to medical procedures or pain management. Perhaps the HIV-positive adults were not yet at the stages of the illness requiring medical intervention. Perhaps questions were not asked of the respondents concerning medical procedures. In my study, pain and various techniques for managing pain figured strongly in the lives of the VR learners. I would like to have seen exploration of the pain issues in other studies.

I was also surprised not to read of concurrent transitions or multiple transformations in the Courtenay, Merriam & Reeves report. Certainly the adults in their study were grappling with many issues simultaneously. It seems transformative learning continues to be thought of in terms of one process, albeit a comprehensive process, but one set of steps or phases towards transformed meaning schemes or perspective.

In his study of women's re-entry programs in community colleges Mezirow (1978), and later in his book on transformative learning (Mezirow, 1991), Mezirow distinguishes four levels of readiness to learn: (a) conventional learners, who remained fully assimilated within their traditional cultural perspectives; (b) threshold learners, who

were prompted to enter the re-entry program due to a disorienting dilemma; (c) emancipated learners, who had not accepted their previous culturally- or socially-defined roles and thus were ready for change; and (d) transformation learners, who already understood how culture, society, and their own attitudes conspired to limit their self-concept or lifestyles. In my own study, I did not ask any questions directly relevant to readiness to learn. Mezirow's second learner type, the threshold learner, fits the VR learner who has suffered a disorienting dilemma. Furthermore, the VR learner could also fit into another category as well. It appeared the VR learners fit into Mezirow's first and second categories, the conventional and threshold learners, or his second and third categories, the threshold and emancipated learners.

Mezirow states that transformative learning is the result of rational processes of thought, discourse, and action (1991). In many cases, that appears to be true of the VR learners, also. Several individuals had benefit of professional counseling and openly talked of being taught to reflect and how helpful proper reflection was to understanding their pasts. Other VR learners did not receive professional counseling yet made changes of worldview indicative of personal transformation. One person said he went on a personal vision quest; one individual used prayer or jumped at apparent opportunities; three others denied reflecting or in any way looking back to past events. It appears there are other extra-rational ways of knowing for some individuals.

Janoff-Bulman & Morgan (1994) report on their previous studies of adult victims of traumatic events. Their studies concern justice and fairness and basic assumptions about the world. They discuss victims' attempts to make meaning of what happened to them,

“particularly their efforts to transform the victimization by focusing on benefits and positive outcomes” (p. 64). Many, though not all, of the VR respondents also saw reason or purpose for their career-ending injuries. For some, it was an end to their lives going nowhere. For others, it was an opportunity to achieve for goals that had heretofore been unreachable. I did not detect other issues of overall fairness or justice from the interview respondents, although there were strong indicators of shattered beliefs about institutional systems that should have, in their estimation, been there to support them.

Limitations

Research study limitations are constraints imposed by the researcher, the method of research, any of the processes, and unintended effects on the research respondents. Numerous limitations affected my study.

1. Myself. Upon reviewing interview transcripts, I was amazed at the follow up probes I *did not* ask. Several times I wished I had asked “Why?” or had connected contradictory statements made by the respondent. One interview was very difficult for me and I did not complete it as thoroughly as I should have. I found myself redoing work too much, not being as effective as I could have been. The phenomenological method – the appropriate method of inquiry for the question – was tough for me.

2. A snapshot in time. Participant responses reflected their moods, attitudes, and thoughts at the time of the interview. Responses might have been different on another day and at another time. I tried to ameliorate the effect of a snapshot in time through member checks, the focus group sessions, and giving the respondents my telephone number and e-

mail address. A longitudinal study which spans several semesters or perhaps follows a cohort of VR learners through school would add depth to a similar study.

3. Reactivity. Reactivity is the effect of the research itself on the respondents (Candy, 1991). The VR learners constructed their responses in reaction to my questions, rather than reporting pre-existing constructs from their repertoire (Neimeyer, 1985).

4. Interview questions. Participants can only respond to the questions I ask. It is my responsibility to construct good questions that elicit good responses. At several points during my data analysis I wished I had asked a question differently, or maybe even an entirely different question.

5. Bias. I, the data collection instrument, bring bias to the study in almost every step of the process. The Moustakas method of phenomenology embraces the bias the researcher adds to the study. The processes of epoche and bracketing attempt to recognize bias and set it aside while listening to respondents or analyzing interview data. However, bias is introduced at other stages, too: the choice of words I used when speaking with the research participants; formulation of the interview questions and the questions I chose to ask; transcribing the audio recordings, especially when I judged which portions to leave out of the transcriptions; identifying meaning units; selecting meaning unit clusters; choice of rhetoric in the written descriptions; and my rhetorical choices in the final written manuscript.

6. Separating what I know from what the data support. On several occasions, I found myself starting to add something to a narrative based on my personal knowledge and then deleting the thought because it was not grounded in the data.

7. Abstracting services. Computer databases, whether on-line via the Internet or on campus-wide networks, are the primary mechanisms for finding information. Search mechanisms are only as good as the keywords I entered, the capabilities of the abstracting service, or the indexing system itself.

Implications

When I first began teaching at the Helena College of Technology, I was not aware of the group of people I later learned were called vocational rehabilitation (VR) learners. My *entré* into their world began by listening to fragments of their stories; a word here, a piece there. I slowly constructed my view of their VR world, person by person, story by story. A visit to the local VR office offered more insights from the VR counselors. It wasn't until I listened and recorded the personal stories of their lives that I really began to understand what it meant to be a VR learner.

I am confident other teachers in our school are similarly unaware of the needs, hopes, concerns, and fears of the VR learners. By sharing the results of my study, I can help shorten the length of time it takes to understand this special population of learners. I also would like to investigate the possibility of hiring a school counselor, even if on a trial basis at part time staffing. Two HCT staff too often are subjected to student confidences that more appropriately belong in the realm of professional counselors. Results of my study may serve to demonstrate the importance of adding a counselor to our professional staff.

Transformative learning theory is gaining attention in adult education. The danger

of the next new theory of adult learning, however, is reification. Mezirow and Freire, more than anyone else, have articulated their constructivist-based concepts of learning in adulthood: other educators and researchers have followed close behind. Adult educators and researchers, rather than blindly jumping onto the new bandwagon, should add to the accumulating literature on transformative learning through carefully-constructed, rigorous research followed by practical application in the classroom. I hope my study adds to the knowledge base. It behooves me to (a) follow the publication of my dissertation by soon writing an article for publication in an adult education or vocational journal, and (b) by following the tenets of praxis by practicing what I preach.

Conducting this study has changed me. I have delighted in learning a new method of human research investigation, phenomenology, and examining and transforming my own attitudes about qualitative research. I have learned of the VR learners' life-worlds and hope to somehow prompt change in our College to further assist them. I have developed a new respect for all aspects of the challenges of conducting good, rigorous qualitative research.

Future Studies

I found that my research project, instead of answering questions, only served to pose more questions for me. In this section, I list many of those questions in terms of possible future studies and I provide some detail for one of the ideas.

1. A model of VR learners. This phenomenological study provided the foundation for understanding the VR experience. A future grounded theory study would take the next

step and answer the more general question, what is a model of the VR learners' experience?

2. Pain and learning. The impact of pain on the lives of the VR learners was a surprise to me. The pain literature did little to answer my questions of the impact of pain on learning, concentration, or retention of material. What is the impact of pain and pain medications on VR learning, concentration, and retention?

3. Multiple transitions and stress. Application of the Holmes-Rahe Social Readjustment Scale (Holmes & Rahe, 1967) to each of the interview transcripts reinforced my belief that VR learners are vulnerable to illness due to stress. Transformative learning and transition literature typically address change as a linear process although recent studies have shown a spiral process. My question has to do with multiple processes of change, all bumping into one another or perhaps complementing to one another. What is the impact of multiple transformative learning experiences?

4. VR learners and wellness. "Healthy body, healthy mind," is a personal metaphor I (try to) subscribe to. My study highlighted secondary health concerns of the VR respondents. Not part of this study but of general knowledge is the emphasis today on wellness resulting in wellness programs provided in large companies, state government, the university system, elementary school, and insurance companies. But here we have a group of people with acknowledged secondary health conditions, and there is no wellness program in place to serve them. What would be the impact of VR learner participation in a wellness program on their health, sense of self, attendance and motivation?

5. Prior postsecondary learning experiences. I learned that half the respondents had

some sort of prior postsecondary learning experiences. It may not matter whether the experience culminated in obtaining a degree; it may be more important that certain individuals had benefit of a type of rehearsal prior to coming to HCT. What impact, if any, does their previous postsecondary attendance experience have on their current enrollment in school?

6. Reflection. Transformative learning literature cites reflection as the primary means for making personal change. Well, just how do people reflect? Is there rational reflection and extra-rational reflection? Are both equally effective?

7. Transformative learning and type. What are the differences in transformative learning by different Jungian personality types?

8. Vocational education. Transformative learning theory is a constructivist theory of development in adulthood. Vocational education, on the other hand, concerns itself primarily with positivist concepts. Can constructivism and positivism co-exist in a vocational setting? If so, to what extent? And how?

9. Age. The average age of VR learners in my study was 36 years, ranging from a young 25 to the oldest at 48. What is the impact of age on transformative learning? Do older VR learners accommodate changing circumstances better than younger VR learners?

10. Injured workers not in a VR program. Periodically during the course of my study I was reminded that the group of VR learners in the study were those who had decided to make a change in their lives. What about the population of injured workers who pursue a different path through vocational rehabilitation, such as on-the-job training? What are their transformative learning experiences? And perhaps of more interest are the

injured workers who do not accept private or public assistance following their injuries (such as our son). What happens to that group of injured workers? Do they experience transformative learning?

11. Validation. I would be interested in a study concerning the importance of validation to VR learners that their decisions to return to school and their presence in school, are appropriate. How important is validation to the VR learner?

12. Support Groups. Several VR learner respondents verbalized their distaste for support groups, while at least two other respondents talked favorably of the support group idea. Courtenay, Merriam & Reeves' study highlighted the strong participation in support groups among their research respondents. Would our VR learners benefit by participation in a local VR support group?

One Study in Some Detail

My interest in transformative learning coupled with my current work with vocational learners of all types, peaks my curiosity concerning the apparent dichotomy of constructivism and positivism in the vocational school arena. My curiosity raises the red flag of vocationalism, yet the problem is a real one. The U.S. Department of Labor's series of SCANS (Secretary's Committee on Achieving Necessary Skills) reports, published in the early 1990s, define foundation skills and competencies needed for success in today's jobs. Interestingly, many of the defined competencies are constructivist in nature; they defy objective, quantifiable measures of competency. Examples of skills and competencies from the SCANS report include:

1. Participates as a member of a team
2. Teaches others
3. Sees things with the mind's eye
4. Knows how to learn
5. Thinks creatively

In Montana, vocational-technical "Vo-tech" schools, once closely aligned with local high schools, were renamed Colleges of Technology upon their reorganization under state university systems. Despite assurances to the contrary, the Colleges have assumed new academically-focused missions, thereby expanding their traditional, industrial arts vocational missions to encompass new programs. The new programs have more of a community college flavor to them and may have names such as General Studies.

There is a transformation occurring in the two year schools. Rather than lamenting the apparent loss of vo-tech lab and shop courses, there should be celebration of the rich diversity offered for the whole school. The beneficiaries of the expanded missions should be the adult learners. One way the adult learners could benefit would be through a combined constructivist-positivist approach to their instruction by College staff and faculty. What would be the effect of the practical application of constructivist theories to vocational education? Can some course goals and objectives be stated in constructivist terms? Can learning be organized and evaluated in a constructivist format? What might a model format look like?

I have not developed these questions further. I am continuing to work on these issues in my own classroom.

Critique of Mezirow's Theory of Perspective Transformation

As I stated previously in Chapter Two, Literature Review, Mezirow's theory of perspective transformation has been critiqued on several points. I wish to add to the debate by offering two new criticisms that arose as a result of my study: (a) the effects of pain on transformative learning, and (b) the implications of two or more transformations at some stage of their respective processes occurring together. I have seen neither issue discussed in the professional literature.

Chronic pain is an essence of the vocational rehabilitation learner's experience. Yet the effects of pain, pain medication, and personal management techniques of pain on learning in general and transformative learning in particular, are not known. Respondents in my study reported being fuzzy-headed, having short attention spans, possessing poor retention, having difficulty concentrating, lacking motivation, being unable to sit for prolonged periods of time, lacking strength or endurance to remain in school for the whole day, and needing to accomplish tasks in the morning "before the pain comes." One respondent reported he "likes to be in control" of his thinking, so delayed taking his pain medication until his need to dull the pain surmounted his desire to think clearly.

Nowhere in the literature have I found information addressing these kinds of pain-related barriers to the processes of transformative learning, yet the barriers are very real and affect a significant portion of the student population,

Another issue that emerged from my study is the topic of multiple transformations. In her book on Adults in Transition, Schlossberg (1984) briefly mentions *concurrent*

stress. She defines concurrent stress as transitions stimulated by stresses or transitions in other areas. She devotes only two paragraphs to that topic. VR learners in my study were confronted by concurrent transitions. If the concurrent transitions result in broadened views, widened horizons, a changed concept of self, or changed meaning schemes or perspectives, then transformative learning has occurred. But what are the processes of concurrent or multiple transformative learning? How often do adults experience multiple transformative learning rather than the linear processes discussed in the literature? Do transitions in one area of a person's life impede transformation in another area, or does transformation in one area impose a venturi effect on the other, seemingly slowing the process but actually speeding its progress?

Conclusion

In bringing my study to a close, I reflect on my own experiences in conducting this inquiry. Phenomenology is an appropriate qualitative methodology for understanding the experiences of the VR learners and their personal transformations. I am heartened and intrigued by the phenomenological method and would apply it to another study of human behavior if the opportunity affords itself.

From Chapter Five, *The Meaning of their Experiences*, I conclude there are eight essences which define the meaning of their experiences for the 15 VR learners: (a) they once performed physically demanding jobs, thus defining themselves as people accustomed to physical work, and people for whom sitting for long periods of time is distinctly uncomfortable; (b) they suffered injuries which effectively ended the careers and lifestyles

they knew; (c) they suffered initial and following reactions to the career-ending injury events; (d) they encountered and were forced to operate within public or private systems; (e) they had multiple issues to face separate from but as a consequence of their injury events; (f) as adults who had not attended school for many years, they returned to a formal educative environment at the Helena College of Technology; (g) once independent citizens, their injury events forced them into positions of degrees of dependency, which they then struggled out of to regain autonomy; (h) and their entire experience was pervaded by pain.

From Chapter Six, *Transformative Learning*, I concluded that all 15 VR learners had experienced some type of transformative learning to varying degrees. A four-way analysis applied to each of their textual descriptions resulted in descriptions commensurate with transformative learning experiences. The four graduate respondents articulated their experiences more fully than first year respondents, and their experiences appeared more robust. All respondents cited the importance of support from spouse, family, friends, God, vocational rehabilitation counselors, and instructors at HCT. I also concluded that pain was a factor which affected all research respondents but in poorly understood ways. And finally, the VR learners dealt with many more issues than those directly related to the precipitating career-ending injury itself, and that the multiplicity of these issues has received very little attention in the literature.

I agree with Taylor (1997) that reports of studies of transformative learning should be published in professional journals. The adult education knowledge base needs continual expansion with broad dissemination of relevant new theory to members of the professional

community. Constructive dialogue is important to personal development as adult educators. We can neither rest on our laurels nor ignore potentially exciting new theories of practice. My study might be criticized as representing a special marginalized population rather than the broader predominant population of adult learners. It is my position that we need to learn about *all* learners, and that learning about any one group teaches us about the entire population of adult learners as a whole.

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APPENDICES

Appendix A. Assistant Dean's Cover Letter

January 27, 1998

The purpose for my letter is to send you the enclosed survey form. Kirsten Graham, a faculty member in the Business Department, is on a leave of absence this semester to finish her doctoral-level research through Montana State University. Her research study has to do with changes adults go through as they learn. She has specifically selected our vocational rehabilitation students - those who receive voc rehab funds from the state Department of Public Health and Human Services - for her study.

Kirsten's research is fully supported by the school and voc rehab services. However, your participation is voluntary. This letter and enclosed survey were prepared by Student Services staff for mailing, thus insuring your name has not been disclosed. If you choose to participate in the study, it is up to you to provide your name to Kirsten by fully completing the enclosed survey.

I urge your support and participation, either by filling out the survey or by completing the survey *AND* volunteering for the in-depth interview. Your continued confidentiality will be protected. If you have any questions at all, please feel free to contact me at my office or call Kirsten Graham directly at 933-8407.

Myrna M. Doney, Ed.D.

Asst Dean for Student Services

Appendix B. Brief Survey Form

Study of Vocational Rehabilitation Learners

The purpose for this voluntary study is to describe the learning changes that take place in our adult voc rehab learners. There are no studies that define you as a group:- Who are you? What changes take place in you? What do we need to know about you?

Do you receive funds from the MT State VR

no

Please enter the last 4



Fold and return to either

yes

Please enter the last 4



Please fill in all 6 boxes

Your age

Sex

Program of study at HCT.
eg, truck diesel or

Semester of school.
eg, 1st, 2nd,

Highest grade completed

The reason you receive VR funds.
Please indicate acci-

Are you willing to participate in an in-depth interview about learning changes that

yes

Your name:

How can I get hold of you?

Where would you like to meet?

What times are best for you?

Morning? Afternoon? Evening?

no

Fold and return to

Thank you for volunteering. It means a lot to me

Appendix C. Interview Guide

In-Depth Interview "Conversation"
My Notes

Name:

Date & Time:

Location:

Checklist:

- * explain consent form - keep signature copy
- * provide storyline paper and pencil - say you want it back at the end
- * make sure tape recorder has fresh tape and works for both voices
- * say name and date for tape
- * Share purpose for the study and interview - personal changes after injury

1. The Ice Breaker/Context

"Where would you say you are in this storyline? Does the storyline represent your life? Please tell me more about what caused you to stop working and ultimately receive voc rehab funding."

2. After injury.

"Please describe the time after your injury. What was it like for you? How did you cope? What got you through that period of time? What stands out?"

3. Awareness

"How do you deal with something you don't understand? What do you do or say when you don't agree with something? Has this changed since your _____ incident?"

4. Metaphor

"What phrase or saying can you use to describe that period of your life after your _____ (incident)?" (May use an example prompt, like; "A parent might describe Saturdays at their house as being like a zoo!") "Life after my incident has been like _____. What characteristics of your description are the same as the characteristics of your life?" (e.g. noisy, chaotic, full of animals, dirty, ...)

5. Reflection

"There is a term called "reflection" that means to review or go back over something we've done or thought; an experience we've been through. Do you reflect very often? Can you give an example of something you might have reflected on? Do you reflect more now than you did before your _____ (incident)?"

6. Critical reflection

"There is a deeper type of reflection called critical reflection. When we critically reflect we look at *why* we hold certain beliefs or opinions or attitudes. For example, I believe in the saying, "Healthy body, healthy mind." Now *why* do I believe that? Probably because it works for me and it was a basic philosophy of a school I taught at for several years. I also attended school PE courses all through grade school and high school. Those previous experiences all together are probably *why* I believe in that saying. So, do you reflect critically to really look at *why* you hold certain beliefs or opinions, or attitudes? Can you come up with an example?"

7. Beliefs

"Has your reflecting led you to change any of your beliefs, attitudes, or values? Have you changed your mind about any really strongly held personal opinions or beliefs?"

8. Perspective

"We look at life through a lens, maybe like a camera lens. Others say they look at life through a veil or cloth or magnifying glass or rose-colored glasses. How would you characterize the way you look at life?" (Worldview, frame of reference, map of reality)

9. Change and influences

"Are you the same person today you were before your injury? Please look at these 3x5 cards and select three which represent the most important influences for your changes. You may create your own cards, if you wish."

10. Life areas.

"Please look at these index cards. They represent life areas as defined by some other researchers. Please place them in order of what parts of your life have changed more than others. Maybe the life area where you have experienced the most number of or most important changes would go first, then second most, and so on. The bottom card would represent the part of your life least affected or changed."

11. The Good Life

"Sometimes we might hear someone talk about 'the Good Life'. What is your Good Life? Is it the same Good Life that you defined for yourself before your _____ incident?"

12. Important value

"What is really important to you today - something you cherish or value, something you hold dear - that was not as important before your injury?"

13. Looking back.

"Try if you can to picture yourself out here sometime after graduation and look back on your accident/injury and on your time at HCT. What place, importance, or impact will both of these have had in your life? "

14. Near closure

"You have had quite a journey! What advice would you have for someone just beginning the journey you have traveled?"

15. Closure

"We've been over a lot of ground, but maybe I've missed a question I should have asked. Is there anything else you would like to talk about that we haven't mentioned yet?"

o May I do a follow-up interview? YES NO

o Would you be willing to participate in a focus group? YES NO

What works best for you? Mornings Afternoons Evenings

Thank you! Our conversation is confidential. If any part of it shows up in my final dissertation in quotes, it will be done anonymously so there is no tie back to you. Thank you for your participation and for sharing your thoughts and feelings with me. I deeply respect the trust you have shown me by your sharing.

Appendix D. Consent Form

(To be read by interviewer before the beginning of the interview. One copy of this form will be left with the respondent and one copy will be signed by the respondent and kept by the interviewer.)

Hi, my name is Kirsten Graham. I am conducting doctoral research on a project entitled: A Case Study of Transformative Learning among Adult Vocational Rehabilitation Learners at the Helena College of Technology. What this means is that I want to learn about how our adult vocational rehabilitation students learn here at school.

This research project is a part of my doctoral studies at the Department of Education at Montana State University in Bozeman. I am the principal investigator and Dr. Bill Lieshoff is my doctoral committee chair. He can be reached at (406) 994-1624. I can be reached at 444-6822.

Thank you for your willingness to participate in this research project. Your participation is important to me and is very much appreciated. Before we start the interview, I would like to reassure you that as a participant in this project you have several definite rights.

First, your participation is entirely voluntary.

You are free to refuse to answer any question at any time.

You are free to withdraw from the interview at any time.

This interview will be kept strictly confidential and will be available only to me.

Excerpts of this interview may be part of the final research report, but under no circumstances will your name or identifying characteristics be included in the report.

I would be grateful if you would sign this form to show that I have read you its contents.

_____ (your signature)

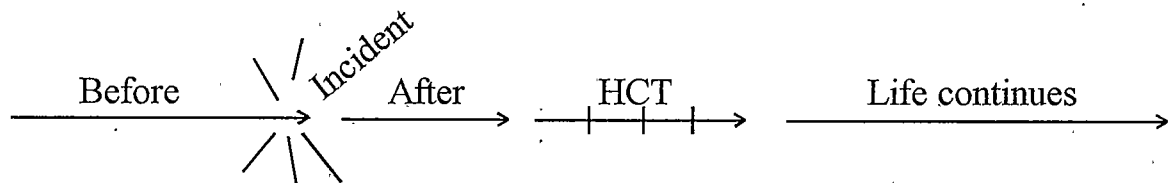
_____ (your printed name)

_____ (today's date)

Would you like a report on the results of this research project? YES NO

If yes, please write down an address of where I can send the report.

Appendix E. Time Line/Story Line

Your Story LineLife Areas

Education / school

Family / friends / community

Faith / religion

Health / fitness

Leisure / hobbies / arts 'n crafts

Work / career / job

Appendix F. Leave-behind Notes



You may find yourself thinking quite a bit about some of the questions, your responses, or your life in general. This is very normal after a long interview like ours. If you think of something that you'd like to share with me, please do not hesitate to do so. There are many ways to communicate with me and I would be delighted to hear or read what you have to say.

- ☎ By telephone at home in Clancy: 933-8407
- ✓ By fax at home: 933-8407
- ✉ By Internet e-mail: kirsteng@mcn.net
- ✍ By HCT mailbox: Ask office staff to put a note in my mailbox.
- ✉ By mail: Kirsten Graham
95 Rock Ridge Drive
Clancy, MT 59634



As a normal matter of course, I also leave behind contacts for various counseling agencies in the Helena area. I do this after all the interviews, not just yours, so at least the information is available to you!

- Counselors at CTI: 443-0800 (located downtown across from Norwest)
- Leo Pocha Clinic: 442-9337
- VA Hospital at Ft. Harrison: 442-6410
- Voc Rehab counselors in Helena (Ken and Kathy): 444-1710
- Golden Triangle Mental Health Clinic on Helena Ave: 443-7151
- Cooperative Health Care Clinic: 443-3584
- Mental Health Services: 442-0646
- Mental Health Assoc: 442-4276
- HCT's Director for the Learning Center: Judy Hay (444-6897)
- HCT's Director of admissions: Annette Walstad (444-6800)

Appendix G. Letter Forwarding Reduced Transcripts

Dear _____:

29 April 1998

Enclose is a text description of my interpretation of what *the period of time from your injury through school means to you*. I tried to be accurate and to honestly and fairly capture the intent of your statements from the interview. It doesn't matter what I think. What matters is the meaning you give to this period of time.

Please read the narrative. Make changes, cross out what is wrong, add new thoughts - whatever you want to do to help make sure this narrative represents *YOU*. If I've accurately captured your thoughts and feelings, then write "OK" at the bottom. Fold it up and return it in the pre-addressed envelope.

If I don't hear from you or get a corrected copy back by Wednesday, May 13th, I'll assume I've done a good job and that no changes or updates are needed. If you have any questions or concerns, please do not hesitate to call me at home at 933-8407 or email me at kirsteng@mcn.net. It is important to me that I tell your story from your point of view.

I am pleased to share with you that I presented a short talk of my research project to a large group of people at a conference at Columbia Teachers' College in New York on April 15th and they expressed a great deal of interest and asked good questions. I also presented a preliminary paper at a research class at Montana State University in Bozeman and they all were interested and supportive.

I promise, this is the last time I'll bother you with my questions, but I think we have something here, a story that begs to be told. Thank you again for your participation and contribution to this important research.

Kirsten Graham

Appendix H. Holmes-Rahe Social Readjustment Scale
(Holmes & Rahe, 1967)

Holmes-Rahe Social Readjustment Scale

Life Event	Score	Life Event	Score
Death of spouse	100	Change responsibilities at work	29
Divorce	73	Child leaving home	29
Marital separation	65	Trouble with in-laws	29
Detention in jail	63	Outstanding pers achievement	28
Death of family member	63	Change in spouse work	26
Major personal illness	53	Change in formal schooling	26
Marriage	50	Change in living conditions	25
Fired from work	47	Change in personal habits	24
Marital reconciliation	45	Trouble with boss	23
Retirement	45	Change in working hours or conditions	20
Major change in health of family member	44	Change in residence	20
Pregnancy	40	Change in recreation	19
Sexual difficulties	39	Change in church activities	19
Gaining new family member	39	Change in social activities	18
Major business readjustment	39	Loan for lesser purchase	17
Major change finances	38	Change in sleeping habits	16
Death of close friend	37	Change in family get togethers	15
Change of line of work	36	Change in eating habits	15
Major change in arguments with spouse	35	Vacation	13
Take out mortgage or big loan	31	Christmas season	12
Foreclosure	30	Minor violations of the law	11
		TOTAL LIFE CHANGE UNITS	

> 300 => 80% chance of illness

150-299 => 50% chance of illness

<150 => 30% chance of developing stress-related illness

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