

## II. The Methodology

### *Situating the Question in a Research Paradigm*

#### *Overview of the Process*

The selection of a methodology for my study was driven by coming to understand my research question: *What is the experience of people with chronic back pain when engaging in a prototype participatory back school model?* In order to situate my question in a research paradigm I had to consider two different paradigms: 1.) The paradigm of the research methodology I will employ in the study; and, 2.) The paradigm that is the foundation for the bounded-system of the participatory back school. I will address both of these paradigms in considerable depth in order to best serve my readers. I anticipate that my dissertation committee will be from substantially different paradigmatic perspectives. To abbreviate or minimize setting sufficient context risks inadequate appreciation of the whole of my study by one of the members.

Following this overview will be a consideration of the quantitative approach, then the qualitative approach in general and finally the participative action research approach specifically. While my use of a case study will be one of the general approaches to qualitative research, the back school is based on a form of participatory action research that differs substantially in perspective from what is widely taught in physical therapy curriculum. These large differences in perspective and ultimately form and process are not common knowledge to my peer group. I therefore will explore in some depth both the assumptions and form/process of the back school not as my research methodology per se, but to provide meaning and context as the focus of my case. From there I will then

proceed to describe the selection of case study as my method and how I will capture the rich description of this novel back school model based a such a foreign paradigm. So to begin, consider my historical perspective.

Both quantitative and qualitative methods answer questions well, just not of the same type of knowledge. My background is that of a physical therapist trained in objectifying or measuring results. The first 15 years of my career focused on a quantitative pursuit of knowing in my practice. How long, how much pressure, or for how many repetitions was knowledge I sought for supporting my patients and my own condition. While that information had allowed me to help many patients in the past, I was keenly aware of its limits in other situations. What I discovered in my healing process, and have observed in the healing process of many others since, is the value in also coming to know additional information. Beyond the quantifiable values of how much, there is the issue of quality: why, what is the meaning, what is the value and how does this experience fit with the meaning of the rest of my life? Such qualitative inquiry falls beyond measurable techniques without significant human intervention and interpretation.

In my doctoral studies at CIIS I undertook a semester long independent study on this issue of methodology. Specifically I investigated the merits and strengths of each methodology, even considering the possibility of pursuing a mixed methodology approach. My decision to use just a qualitative method was the outcome of my independent study. I also determined that beyond the dramatic increase in complexity of carrying out a mixed methods study, such an approach did not answer the specific question I wanted answered.

I believe there is great value in my being able to bridge the quantitative and

qualitative perspectives of my peers. The quantitative method is the perspective at the foundation of nearly every study on chronic low back pain and back schools. The following is a brief summary of those basic principles of the quantitative method that served as the foundation of my worldview the first 40 years of my life.

### ***The Quantitative Method***

Scientific inquiry involves a bringing together of concepts and data: ideas and observations about human life. Ultimately, scientists seek to establish a correspondence between what they observe and their conceptual understandings of the way things are (Babbie, Halley & Zaino, 2000). When scientists actually measured or *quantified* concepts that capture variations among people, they would shift terminology from concepts to variables to allow for object manipulation within an experimental framework. The outcome was to understand the relationships from a causal perspective in order to predict future events.

The defense of theories about these relationships became the primary model of science. A theory is a statement or set of statements pertaining to the relationships among variables. A theory, therefore, is a set of logical explanations about patterns of human life: patterns among the variables that describe people and their behaviors. The scientific researcher would form hypotheses around these theories. A hypothesis is a statement of expectation derived from a theory that proposes a relationship between two or more variables (Babbie, Halley & Zaino, 2000). Specifically, a hypothesis is a tentative statement that proposes that variation in one variable (the independent variable) causes or leads to variation in the other variable (the dependent variable). If we could just identify what variable created back pain, then all we had to do is modify that variable! The

relationships such as the one predicted in such a hypothesis are probabilistic in nature and theoretically allow the inquirer to make predictions about similar samples of individuals.

This process of moving from theoretical understandings and the derivation of specific hypotheses to the collection and analysis of data is called deduction. The converse process that proceeds from data back to theory is called induction. More simply, deduction can be seen as reasoning from general understandings to specific expectations, whereas induction can be seen as reasoning from specific observations to general explanations. Both deduction and induction are essential parts of any scientific inquiry, but traditionally the scientific method, or quantitative paradigm has been heavily focused on the deductive process (Babbie, Halley & Zaino, 2000).

When quantitative researchers identified an indicator it was said to be *valid* if it really measured what it is intended to measure and it was *invalid* if it did not. *Reliability* refers to the quality of a measuring instrument that would cause it to report the same value in successive observations of a given case. In the quantitative method this instrument was always some thing other than the researcher (Babbie, Halley & Zaino, 2000).

There are a number of types of variables and with each of them, a relative level of predictability. Over the years the emphasis and value has been placed on having the most statistically controlled and predictive study possible. This system of quantifying led to many advances of science and technology that allow us to examine this issue today. There has, however, been a predominance of the quantitative method through the end of the last century. This predominance in both perspective and inquiry has contributed to some significant frustrations in medical science. One of those frustrations is the

burgeoning arena of chronic pain management.

While it is beyond the scope of this paper to address all aspects of the quantitative method, I will review some the most influential in my experience as a clinician. Absent from my experience in research had been the issue of the role of values in a study. In fact, I had never heard a discussion about what type of knowledge is of value to the community of researchers or the larger community that sponsors them. Traditionally the researcher's values are kept out of the study in a quantitative project. One was allowed to make a statement of probability only by entirely omitting statements about values from a written report, using impersonal language, and reporting the "facts"- arguing closely from the evidence gathered in the study. Another distinction is that the rhetoric, or language of the quantitative researcher would be not only impersonal and formal, but also based on accepted words such as relationship, comparison, and within-group (Creswell, 1994).

The quantitative methodology (the entire process of a study) as noted above used a deductive form of logic wherein theories and hypotheses are tested in a cause-and-effect order. The intent of the quantitative study was to develop generalizations that contribute to the theory and that enable one to better predict, explain, and understand some phenomenon. Again, generalizations were enhanced if the information and instruments used are valid and reliable.

The format of a quantitative study conforms to standards easily identified in medical journal articles and research studies. Quantitative methods use of standardized measures for varying perspectives and experiences of people could be fit into a limited number of predetermined response categories to which numbers are assigned. This offers a major advantage of a quantitative study as it facilitates comparison and statistical

aggregation of the data (Patton, 2002). These studies offered a broad, generalizable set of findings presented succinctly and parsimoniously. As the reader, I could rest assured knowing the validity of the instrument and that the instrument reliably measured what it was supposed to measure. The focus of every study was on the measuring instrument (or manufacturer's equipment). The logic and power of probability sampling were derived from the study's ultimate purpose: generalization and prediction (Patton, 2002). This worldview of an orderly, tidy world of predictability stood out in stark contrast to what I discovered as I undertook my preliminary review of the literature in the last chapter. The findings of the past 30 years seemed to demonstrate a fair amount of confusion and disorder in predicting how to care for people with chronic back pain, particularly in the traditional back school model.

Traditionally back schools focused on what to do to people who had "failed" standard care for spine pain. My review of the literature on back schools for individuals with chronic spine pain found only quantitative studies. Given the predominance of the quantitative perspective in medical science, this is not a surprising finding. Understanding the phenomenon in terms of what to "do to the other" (predictability) in order to change the other has been the key concern. Possibly there are more fruitful inquiries to make at this time. One question might be asking how do these people now answer for themselves the "why" and the "how" to live a life of quality and fullness with their chronic spine pain? These deep questions are what mark the qualitative research approach. While I do not reject the quantitative research that has been done, I want to contribute to these qualitative areas that have been underresearched.

### *Toward a Qualitative Approach*

### *Quality concerns*

In keeping with my integral view, the use of the researcher rather than some tool as the primary research instrument is ideal for my topic. The complex nature of chronic pain is not measurable by any single instrument. Pain has physical, emotional, social and economic qualities to name but a few. There is no standard day of living with chronic pain, so the quantitative inquiry can not be responsive to the participant's experience of that moment and is limited to measuring some "average" experience in an "average" day or week. For example, a qualitative inquirer may as a responsive human instrument potentially "discover" that the employer's workmen's compensation carrier's failure to issue timely and accurate checks forces the non-injured spouse to take on extra work, leaving the participant home to bathe, diaper and pickup after the children, leading to further trauma for the participant. This information would be lost in a standardized, quantitative data collection form or be discarded as artifact.

Who has more opportunities to intervene and to know what is contributing to their experience of chronic back pain than the individual? I contend no one else does and for that reason will direct my dissertational inquiry through a qualitative process. The quantitative approach does not seem to be sufficiently sensitive or flexible to allow me to discover their experience of my prototype back school. The decision to pursue a qualitative inquiry does not lock me, the researcher, into a monolithic approach (Patton, 2002). In fact, qualitative research has undergone significant growth and increased popularity in its relatively brief history (Reason and Bradbury, 2001). Qualitative research is described as an *umbrella concept* covering several forms of inquiry to understand and make meaning of social phenomena, which could include the experience

of a participatory back school experience (Merriam, 1998). It is beyond the scope of this proposal to provide of a thorough overview of the many forms of qualitative research. Instead, in the following section I will focus on the essential aspects of the qualitative inquiry and how they relate to my study.

### *A qualitative approach*

Qualitative research seeks to understand from the participant's perspective (*etic*), not the researcher's (*emic*) (Merriam, 1998). Merriam further stated that qualitative inquiry is interested in understanding the meaning people have constructed as they make sense of their world and the experiences they have in the world. This "why and how" then can generate multiple realities for the researcher, the participant, and the reader (Creswell, 1994). Some specific themes of qualitative research will clarify how this approach offers a new perspective in my topic area.

There are varying lists of themes of qualitative inquiry (Merriam, 2001; Patton 2002; Denzin and Lincoln, 2000). In dealing with the complex social phenomenon of chronic back pain, I find the following themes of qualitative research offer promise for new understandings in living with this challenging problem:

- Naturalistic Inquiry: As a design strategy, the "real-world" situations are allowed to unfold in non-manipulative and non-controlling fashion; there is an openness without predetermined constraints on findings (Patton, 2002)
- Emergent design: Closely related to naturalistic inquiry, the researcher has the freedom to be responsive and pursue new paths as they emerge (Patton, 2002). If

the participants have questions they want to explore or themes emerge during the study, the inquiry can be adapted to fit the changing situation.

- **Researcher as primary instrument:** The human being, that is, the researcher or co-researchers in the case of participative methods, are the primary instruments of the inquiry. This offers certain advantages that non-human instruments lack. The qualitative researcher is able to be immediately responsive and adaptive to unique situations, able to record non-verbal data, clarify input, check with the respondents for accuracy of interpretation, and explore unanticipated responses (Merriam, 2001).
- **Purposeful sampling:** The qualitative researcher seeks not an average “case”, but purposefully looks to garner full and rich description of the lived experience. The subjects are viewed as potentially offering illumination and “rich information” into the study, not needing to “fit” into a preconceived category nor having to serve as an empirical generalization of a *sample* population. The researcher purposefully samples those participants that offer, “useful manifestations of the phenomenon of interest.” (Patton, 2002, p. 40).
- **Inductive process:** The inductive process allows the researcher to “listen” to the questions and solutions of the participants, resulting in data from which to build concepts, hypotheses and theories (Merriam, 2001) Allowing the questions to emerge from those living the phenomenon of interest is a shift from the researcher as expert knower to inquisitive learner amongst of group of co-learners.

- Dynamic systems and holistic perspectives: The themes of dynamic systems and holistic perspectives as aspects of fieldwork and analysis strategies address complex social problems. The researcher, who not attempting to isolate single variables, can focus on interdependencies and system dynamics not previously considered (Patton, 2002). The themes and patterns that emerge through the inductive process can bridge various aspects of the social phenomenon offering key insights lost to simplified inquiries.

These themes offer me as the researcher some essential concepts and strategies for inquiring into the topic at hand.

My personal experience with chronic spine pain suggests the need for this flexible, inclusive process of investigating this problem that is nested within the dynamic systems of modern society. Specifically, the participatory action research form of qualitative research presents a process for exploring the situation *with* rather than *on* individuals with chronic back pain.

### *Participative Action Research*

Just as qualitative research is a broad umbrella concept for a number of forms of inquiry, so to participatory action research (PAR) is a sub-umbrella for a number of forms of research to include Appreciative Inquiry, Action Inquiry, Critical Inquiry and Collaborative Inquiry. I identify some of the key features of PAR as they pertain to my back school model, setting the ground for the next section that the paradigms that underlie the various research methods. In summary, my back school is based on a

collaborative inquiry which is a form of PAR, which in turn is a form of qualitative research.

Participatory research is grounded in four ways of knowing. (Heron and Reason, 1997):

- 1.) *Experiential* knowing which means the researcher's direct encounter through participation; feeling and imaging the presence of some energy, entity, person, place, process or thing. This includes the creative shaping of a world through the transaction of imaging it and perceptually enacting its forms of appearing.
- 2.) *Presentational* knowing is grounded on images from experiential knowing. Described as an intuitive grasp of the significance of their experience of their world, it is symbolized in graphic, plastic, and musical, vocal and verbal-art forms. Metaphors and spatiotemporal forms of imagery are symbolized forms of their experience with the world.
- 3.) *Propositional* knowing in conceptual terms which are their descriptions of reality through language of statements and various propositions based on presentational forms, "-disarms are visual shapes of the spoken or written word-and are ultimately grounded in our experiential articulation of a world."
- 4.) *Practical* knowing is demonstrating a skill or competency. The ability to act in purposive deeds based on the other three forms of knowing culminates in practical skills from action.

The assumption of the participatory paradigm is that true appreciation has to be informed through three other ways of knowing, not just through a linear, ordered proposition of linguistic symbols. The essence of the participatory practice as a whole is this relationship of *critical subjectivity*. Critical subjectivity refers to the process of one's knowing resulting from ongoing interdependent feedback of the four ways of knowing. This critical subjectivity demands an awareness of how the four ways of knowing interact within a quantum relationship of continually changing relationships (dynamic systems) (Patton, 2002). Any brief review, such as what follows here, cannot capture the richness and complexity of these relationships. A deeper explanation will follow in the section on

Interpretative Research Paradigms. In participatory research the initiator is motivated by a deep, whole person concern and dedication to improving the quality of life for those involved in the project. Some key themes follow to briefly review this essence of PAR.

### ***Themes of PAR***

The theme of cycles of reflection and action are a key feature of a participative worldview of inquiry (Reason and Bradbury, 2001). The cycles involve the principles of critical subjectivity and the four ways of knowing. Participatory research's circularity and nonlinear nature demand multiple perspectives. As the co-researchers (back school students) act, they acquire experience that informs presentational and propositional knowing, which are discovered in reflection, and which leads to another cycle of action (participation). The interaction of these perspectives weaves the depth of understanding and wholeness that are difficult to fully convey.

Participatory action research's primary concern is developing practical knowing in pursuit of worthwhile human purposes for the group (Heron and Reason, 1997). "It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities." (Reason & Bradbury, 2001, p.1) Participatory research works toward practical outcomes and creating new forms of understanding, not meaningless theory production without action (Gustavsen, 2001). Critically reflecting on the practical significance of the research in participatory research is considered a key point in establishing validity of PAR.

Participatory action research is also robust and flexible, not a fragile, esoteric process limited to a contrived laboratory setting. These characteristics lend themselves

well to my research problem. The “messy” experience of chronic back pain does not fit well in a brightly lit classroom of chairs, tables and A-V support. The ability to listen, respond and proceed with inquiry based on the contributions of the participants is paramount to discovering practical solutions. The research process then is seen as a potential source for empowerment as well as a process for influencing professional policy and practice by reflecting the views and opinions of the service users, not just the traditional researcher (French, S., Reynolds, F. & Swain, J. , 2001).

Additionally, participatory research as a holistic practice draws on the legacies of the exact sciences and "softer" sciences, rejecting neither, and including aspects of both. The participant is expected to participate, not assume a passive role. Such agency and engagement leads to liberation from what too often becomes a passive, dependent relationship of subjects in other forms of research.

Additional themes of participatory inquiry are related to the production of knowledge and power. Political imbalances are often explored in this form of inquiry. Brooks & Watkins (1994) offered that over time the transference of authority over the production control of knowledge has established a secular hierarchy where researchers and scholars of the dominant quantitative worldview were seen to bear the task of producing formal knowledge on behalf of all humankind. Other less formal ways of knowing or non-institutionalized learning became less *legitimate*. The dominant worldview sources of knowledge production became both political and technological powers by being the holders of the one, universal "reality." (Who gets coverage, how much it pays, who qualifies for disability, etc.) In contrast to the quantitative approach, participatory action research establishes a dynamic and ongoing inquiry from the singular

role of objective observers into a collaborative relationship with and as subjects. Then as subjects, or co-researchers as they are called, both “researcher and subjects” share in the control and design of the study (Reason and Bradbury, 2001). Researchers and co-researchers seek to also utilize the *post-conceptual* mind, which is, learning to think about their own thinking and evaluating the paradigms supporting their knowledge production and experience of the phenomenon in question. Reflection of that types calls for a continual reassessment by all involved to insure an equal and agreed upon sharing of power and control of the study.

While such a brief review strains to communicate the whole of PAR, these dimensions and themes point toward the selection of my particular design. For in an additional aspect of PAR is that research validity also rests on whether the project results in an ongoing, emergent process of enduring consequence and how it impacts the plural ways of knowing (Reason and Bradbury, 2001). In participatory research there is no final, absolute reality, only deeper inquiry into more questions and ways of knowing, much like attempting to understand the multidimensional complexity of chronic back pain.

My attraction to a qualitative inquiry reveals some of the assumptions or paradigms that I bring to my dissertation. A review of paradigms and the one that most informs my worldview is presented in the following section of this proposal. My careful reflection and inquiry into my own paradigms was invaluable in arriving at my methodology.

### ***Interpretive Research Paradigms***

Paradigms help humans understand phenomena in the human and social sciences (Creswell, 1994). As a basic set of beliefs, paradigms guide a researcher’s actions and

represent the core of the researcher's convictions regarding their ontology (how we understand the nature of reality), epistemology (what we believe about knowledge and how we come to know our world), and axiology (what we value knowing) (Denzin & Lincoln, 2000). The utility of paradigms is that they create assumptions about (Creswell, 1994):

- a.) How science should be conducted; in my study how both researchers and participants can come to better understand the experience of living with chronic back pain.
- b.) The social world; the meaning making of such experience by society and how that meaning can be transformed.
- c.) What serves as legitimate science.

These assumptions then guide the researcher in both theory and method throughout a study. Creswell further stated the importance of understanding one's paradigms because they provide direction for designing all phases of a study. Taken a step further, these paradigms also shape how the researcher sees the world and acts in it stated Guba as cited by Denzin & Lincoln (2000, p. 19). In fact, Denizen & Lincoln (2000) further defined paradigms as interpretive frameworks that create a net that contains a researcher's premises. The ontological premise is how the researcher perceives the nature of reality. The epistemological premise is how they relate to that reality and in what way they can come to know the world. The methodological premise then establishes the techniques they have available to approach increasing their understanding of the world.

Qualitative research is structured by five major interpretive paradigms: (a) positivism, (b) postpositivism, (c) critical theory, (d) constructivism, and (e) the participatory paradigm (Lincoln & Guba in Denzin & Lincoln, 2000). The first three of these paradigms are not appropriate for my project:

- a) Positivism is the paradigm that underlies the quantitative approach discussed earlier. Positivism holds that there is a “real” reality and that researchers who employ chiefly quantitative methods can apprehend reality. For the reasons delineated in the beginning of this chapter, this approach is inappropriate for my study within a qualitative inquiry as well.
- b) Postpositivism alters positivism by maintaining that, while there is indeed a “real” reality, it can be acquired only imperfectly, though by using empirical evidence it is possible to differentiate between findings as being more or less credible and to distinguish between belief and valid belief (Fay, 1996). The empirical nature of postpositivism, its methods, and its research goal of prediction and control are inappropriate for an inquiry into the experience of a prototype back school. I am not looking to find a comparative nor predictive outcome from my study
- c) Critical theory focuses on how injustice and power relations affect the experiences of people and their understandings of their circumstances (Merriam, 2002). Critical theory research includes paradigms such as feminist, post-structural, and queer theory. Critical theory approaches research with a framework of being fundamentally and explicitly political as a change oriented

form of engagement (Patton, 2002). As mentioned earlier, there may be issues of power imbalance identified in an individual's experience of the participatory back school, though modifying those imbalances is not at all fundamental to my inquiry in this stage. As discussed in the significance of this research, if power imbalances such as culture, ethnic orientation, or economics are a common theme or experience, this study could possibly call for a future critical theory investigation.

The remaining paradigms are constructivism and participatory. This inquiry will make use of both paradigms. As a case study, constructivism will inform my process of making meaning from the bounded experience of a collaborative inquiry. I will describe that paradigm's influence first, then follow with an in-depth review of the participatory paradigm as it under girds the collaborative inquiry method I hope to introduce to my profession.

#### *Constructivism supporting case study*

Constructivism is based on the premise that the human reality is fundamentally different from the natural, physical reality. Constructivism holds that people construct their version of reality that is "made up" and shaped by cultural and linguistic constructs (Patton, 2002). As a constructivist researcher in this case study I would observe and construct my reality of the multiple realities that are constructed by the participants (Patton, 2002). My reconstruction of the experiences of those within the collaborative inquiry would reflect a constructivist's epistemology. That epistemology is has five primary assumptions:

1. “Truth” is a matter of consensus among informed and sophisticated constructors, not of correspondence with objective reality.
2. “Facts” have no meaning except within some value framework; hence there cannot be an “objective” assessment of any proposition.
3. “Causes” and effects do not exist except by imputation...
4. Phenomena can only be understood within the context in which they are studied...
5. Data derived from constructivist inquiry have neither special status nor legitimization; they represent simply another construction to be taken into account in the move toward consensus. (Guba & Lincoln as cited in Patton, 2002)

Constructivism is based on ontological relativism and epistemological subjectivity (Lincoln & Guba in Denzin & Lincoln, 2000). Rather than viewing this perspective as a weakness or flaw behind case study, I understand it to be the best way for acquiring the depth and breadth of the participants’ experiences of this prototype back school.

Constructivism in its extreme can lead to nihilistic relativism where no agreed upon meaning or reality is arrived at between individuals (Fay, 1996). Such an ontology would not serve the methodology of the case subject: the collaborative inquiry back school.

Consequently the participatory paradigm serves my broadest perspective while including my awareness of the functionality of constructivism that underlies the case study methodology.

#### *The participatory paradigm of the back school model*

A participative paradigm is where the researcher (in the participatory back school all of the participants are co-researcher searching for understanding and meaning) inquires through various modes of learning in a subjective, immersed reflective process. According to Heron and Reason (1997), a participatory worldview does not attempt to

create an overarching framework of a single reality (realism) and acknowledges its fundamental limitations of articulating reality within any single paradigm (fallibilism). Heron and Reason (1997) place the participatory paradigm within how we come to understand what is real as a *participative* reality. A participative reality is considered to be the relationship of a subjective (the knower) and the objective (the known), or a subjective-objective nature. The subjective experience of reality for the knower is known in the form the mind gives it through participation, but reality is also objective because the mind interpenetrates the reality it shapes (Heron, 1996). The participative paradigm assumes a perspective nature of reality that emerges through this subjective-objective interaction with mind and the given cosmos.

The co-researchers then hold that such a reality can only be known through participation. Specifically, this reality is known through what is termed an extended epistemology. The subjective-objective reality is known through a relationship of not just a single way of knowing, but through the integration of a knower's four ways of knowing previously presented (Heron and Reason, 1997).

As discussed earlier, the four ways are interdependent, each interacting with the others. The participative paradigm assumes reality can and must best be known through all four ways, for to lack any one subjective knowing ultimately fails to inform all of the researcher's other ways of coming to know reality. The participative perspective asks the researcher to be, "...both situated and reflexive, to be explicit about the perspective from which knowledge is created, to see inquiry as a process of coming to know..." (Reason and Bradbury, 2001, p.7). In that reflexivity it is critical that all four subjective ways of knowing are held in awareness. In traditional back schools the knowing has been limited

to primarily propositional, with some occasional experiential through activity and demonstration, but never intentionally integrated through all four.

The methodology of a participative paradigm is one of political participation in collaborative action inquiry (Heron and Reason, 1997). While the paradigm is rooted in participation, the participation extends further than just the subjective realm of only the individual researcher (or co-researchers in a participatory back school). The participative paradigm assumes that reality is not only understood in the critical subjectivity of the researcher's four ways of knowing, but also that those ways of knowing are always embedded in a language and culture of *others* as well. Consequently, what can come to be known of a participative reality is always arrived in participation with others, or what is called *critical intersubjectivity* (Heron and Reason, 1997). The methodology must engage others as well because what can be known is understood with others. This cooperation amongst all of the participants includes the researcher as a participant. It also provides for design input and power in a democratic participation by all of the subjects, or *co-researchers* as they and the participating researcher are called in a participative inquiry (Heron and Reason, 1997).

Methodologically, critical intersubjectivity suggests techniques that involve cycles of moving through the four ways of knowing, as each way of knowing informs the other three ways of knowing for the students, revealing some part of the participative reality. As the cycles are completed, each way of knowing is enriched and refined. The knowing then is grounded not just in the individual's experience, but within the co-researcher's intersubjective field as well (Heron and Reason, 1997). Such a dynamic

interaction and sharing of experience does not appear to have been part of most traditional back school models.

In articulating the participatory paradigm Heron and Reason (1997) stated an additional key assumption of paradigms is the participant asks what sort of knowledge is intrinsically valuable? The participative paradigm position is that knowledge that leads to human flourishing through practical action is what is assumed to be valuable. *Flourishing* is seen as end in itself, and defined as an enabling balance between people of hierarchy, co-operation and autonomy. Here we see the political and cooperative methodology of the participative paradigm expressed in action. Such action is practical knowing grounded in the methodology in such a way that imbalances in power, decision-making, and authority are transformed in the service of human flourishing. In this way reflective action transforms the reality of the co-researchers and their world. Through the co-researchers planning and participation of the PBS they identify needs unique to their group and then leave with practical action tools to address those needs.

Crucial to supporting my work, Reason and Bradbury (2001) stated that the participative paradigm does not require throwing away medical training, but can draw on it *with* patients in diagnosis and healing. Gone would be the expert –passive patient model, for neither the patient nor the healthcare supporter come to know about the phenomenon of chronic back pain without each participating in action. That such action leads to practical being and acting may contrast the high percentage of propositional learning that has taken place in traditional back schools. This method allows knowledge to arise in the process of living, rather than acquiring it as an unrelated *thing* stored up in a cabinet for dispensation to the participants. This practical knowing is liberated from the

power of complicated Latin or Greek terminology, and is experienced and expressed presentationally in the language of ordinary people in the conversation and action of all of the participants (Reason & Bradbury, 2001).

Philosophically the participatory paradigm also embodies my experientially knowing in living with chronic back pain. Only when I surrendered the object-other framework of relationship with my back pain, did healing begin. The subjective-objective dance has led to new relationships of participative inquiry far greater than I could have imagined. The most exciting part is that my experience has confirmed that the participatory paradigm does not appear as a final product, but continues to develop as an extended epistemology according to Fals Borda, (as cited in Reason & Bradbury, 2001). For those labeled as having “chronic back pain,” what could a more practical outcome of a back school intervention?

Ultimately this points to what I believe is the problem under investigation. Unlike the traditional back school, participatory research rejects the idea that one generalizable solution (“a” single back school curriculum) can fit multiple situations (Reason and Bradbury, 2001). Hence the participatory back school is rooted in the participative paradigm and the bounded experience of my case study.

### *Selection of the Research Methodology*

#### *Qualitative Research Methodologies*

The great variety in qualitative research methodologies/strategies requires a careful attention to how they differ and how they can be used together in some cases. Qualitative methodologies have been said to fall into a variety of categories. As few as

eight (Merriam & Associates, 2002), then increasing to 10 categories (Denzin & Lincoln, 2000), or even up to 26+ (Janesick in Denzin & Lincoln, 2000). A brief review of the basic qualitative research strategies will proceed my explanation of why the case study is the most appropriate methodology for my research.

Qualitative research methodologies can be divided into eight types (Merriam & Associates, 2002):

- 1) Basic Interpretive Qualitative Study – focuses on (a) how people interpret their experiences, (b) how they construct their worlds, and (c) what meaning they attribute to their experiences. The researcher serves as a mediator of the meaning by using an inductive method and presenting findings in a descriptive manner.
- 2) Phenomenology – focuses on the structure of an experience or its essence. Researchers bracket their personal assumptions and worldviews and analyze the individual experiences of participants to discover the essence of the phenomenon under study. I will not be undertaking a phenomenological study, though I will develop descriptions of each person's experience. I will not be creating an analysis of the way each person understands or structures his or her experience, merely their experience itself.
- 3) Grounded Theory – inductively derives a theory that is grounded in the data of the matter under study. Researchers use the constant comparative method of analyzing data in an attempt to discern the conceptual elements of an emerging theory. I will not be generating a theory.

- 4) Ethnographic Study – studies human culture and society by focusing on the attitudes, values, and convictions that shape the lives of people in a given environment. This methodology is grounded in anthropology, and it presents a sociocultural interpretation of the data it collects. While inherent in the collaborative inquiry nature of the PBS, this is not my research question.
- 5) Narrative Analysis – uses life stories as the primary data for analysis and approaches this data from one of three perspectives: (a) psychological (regarding motivations and inner forces that shape experience), (b) biographical (the relationship of a person to their society), or (c) discourse analysis (analyzing the form and content of the story itself to cast light on the meaning of the text). I will not be collecting life stories.
- 6) Critical Qualitative Research – the researcher seeks to uncover the beliefs, assumptions, and convictions of society and culture that limit the options faced by people in that environment. The focus here is on contextual understanding and the liberation of the people involved. Participatory action research belongs to this methodological category, but is the bounded system under consideration in the case.
- 7) Postmodern Research – there are various postmodern or post-structural approaches that challenge the form and categories of traditional qualitative methodologies. Researchers invent new formats in which to collect, analyze, and present data. These approaches do not support my research question.
- 8) Case Study – is the method I will incorporate. An explanation of the case study method and its suitability for this project follows.

### *Case study*

The case study provides an opportunity to carry out an in-depth study of a particular individual, situation or event (French, Reynolds, & Swain, 2001). Case studies present the actual descriptions of human experience that people have formulated for themselves. “The case study is an holistic research approach which can unravel the complexities of a situation.”(French, Reynolds, & Swain, 2001, p.194). They further discussed the focus on real life events that happen naturally in case studies. Stake (1995) asserted that case study arose out of a need to study complex social phenomena. This attribute of case study is crucial for attempting to understand the experiences of someone living with chronic back pain.

The term *case study* has multiple meanings. It refers to a specific way of collecting, organizing, and analyzing data and it refers to the analytical process itself (Patton, 2002). The case study is bounded system, limiting precisely what and how the topic will be studied (Merriam, 2001). Case studies should not be confused with the clinical tool of case reports which are more descriptive and usually dismissed as “not research” (French, Reynolds, & Swain, 2001). This is a critical distinction because case study refers not only to the “what” of the bounded system, but also the process of a very detailed description.

In my study, the case will be the individual persons I select out of the participants who participate (with me as co-researcher) in an 8-week-long inquiry that explores the participatory back school experience. There are three fundamental intentions underlying case study: description, interpretation, and evaluation (Merriam, 1998). The aim of my study is to (a) describe what happens when people are in a participatory back school, (b)

interpret their experiences, individually and collectively, and (c) describe the experiences they had within their everyday lives that may have affected their quality of life. This provides a good match between the intentions of case study and my goals. I want to make clear however I will not be evaluating the participatory back school in a comparison process to traditional back schools.

Since I am focusing on the experience of 3-4 co-researchers, I will be developing 3-4 cases. While I will be noting commonalities between cases, my primary focus will be on each individual case and describing that experience in detail.

### ***Limitations within case studies***

There are limitations associated with case study research (Merriam, 1998). Those limitations are:

- Political bias due to funding of the study. This study is receiving no outside funding.
- Limitations of time or money to devote to such an undertaking. As a part of my clinical practice and having my own facility, I will have time and sufficient resources to meet the demands of this study.
- Case studies tend to masquerade as the whole when they are but a slice of life.

My strong quantitative background will maintain a sensitivity to any generalizations I might be tempted to make from this study. Further, most of my readers' will share such a quantitative background so there will be a minimal risk to generalize to other groups or situations (Merriam, 2001). I will encourage them

to consider their own situations and to examine whether or not it is possible for them to incorporate a participatory clinical setting in their practice.

- Case studies can oversimplify or exaggerate a situation, leading to erroneous conclusions. I will use member check ins, triangulation and multiple data sources to bring balance to any conclusions I reach from the study.
- Case studies are limited by the sensitivity and integrity of the investigator. This concern is covered in detail in the ethical considerations section.
- Selecting only the data that proves the points favored by the investigator. I experience this more as a freedom, than a limitation. I have no theory to support or hypothesis to prove. I can recall such a temptation in earlier quantitative studies. In this study, I know the process will generate supportive experiences for the participants, but acknowledge that I have no idea how that will be expressed individually. If no one would have a supportive experience, that too is useful information to share with my peers.

### ***Steps in a case study***

There are three fundamental steps to constructing a case study: (a) assemble the raw case data, (b) construct a case record, and (c) write a final case study narrative (Merriam, 1998). The raw data can be a variety of material including documents, interviews, recordings, and written text. The case record is a consolidation of the raw data that has been collected; it is organized, arranged, and edited into a workable and understandable form. The final narrative is a descriptive picture of the unit under study.

My aim is to have my cases be holistic and context sensitive, and the resulting narrative, ideally, will take the reader fully into the experience of the participant (Patton, 2002).

My research strategy is to select between 3-4 people from a group of 7-8 (including myself) who are willing to experience a participatory back school. We will participate as co-researchers in an 8-week-long inquiry of finding support for living with chronic back pain. This 8-week-long inquiry is the case, and it will be a context-sensitive exploration which includes significant periods of reflection and data collected from a variety of sources. The case study will answer my research question – *What is the experience of people with chronic back pain when engaging in a prototype back school using a participatory treatment model?*

### ***The interrelationship between the case study and the PBS***

At this point there can be a confusing entanglement of paradigms, methodologies and processes. In summary consider the following statements and how the remainder of this chapter is intended to clarify my proposed study.

Personally, I maintain an integral worldview. My qualitative case study will provide the boundaries for the participatory action research back school. The participatory back school is modeled on the PAR method of collaborative inquiry. The back school then rests on a participatory paradigm. In the case I want to reflect on this back school process and make meaning of the experience from the feedback of the other co-researchers and my experience. My integral worldview operationalizes this use of a multiparadigmatic view. I will use the constructivist view in constructing the case to

make meaning of the content of the participatory experience in the back school.

Subsequently my case study methodology aligns with my worldview.

A qualitative approach is the best tool for arriving at the information I seek within my research question. I will begin by describing the processes of the participatory back school. Following that description will be the detail of my proposed study depicting the relationship between the two areas of case study and collaborative inquiry nature of the participatory back school.

### ***The Participatory Back School***

Why collaborative inquiry from all of the participatory action research strategies for my back school? “With traditional research, complex issues are sometimes simplified or avoided because the methods are too rigid to accommodate them.” (French, S., Reynolds, F. & Swain, J., 2001, p. 241) They further stated that strategies with participatory approaches should emphasize, “those [methods] which are eclectic, inventive and flexible, giving room for new ideas to emerge and allowing for changes of plan and direction as the research proceeds.” I believe collaborative inquiry fulfills these criteria and will best serve the co-researchers as well.

A collaborative inquiry gathers people who have similar concerns and interests to bring about creative action and/or revise their understanding of their world and transform their practice within it. Collaborative inquiry is based on two participative principles: epistemic participation and political participation (Heron and Reason, 1997). The design emerges because of the political participation the co-researchers are involved in the design and management of the inquiry (Heron and Reason, 2001). Consequently,

the facilitator does not create a detailed, specific design that the rest of the participants are expected to follow without input beforehand. To do so would violate the democratic principles of the collaborative inquiry.

A key discriminator of the experience of collaborative inquiry is that this strategy uses only the group members' own experience (epistemic participation). The collaborative inquiry will be a transformative inquiry where the transformations are of personal being, processes, and the environment or skills involved living with chronic back pain (Heron and Reason, 2001). The data will be the outcome of each member's practical and experiential knowing that has been informed and expressed through their presentational and propositional knowing of the epistemic participation. The participatory back school will be an *outside inquiry* (Heron and Reason, 2001), which means where what goes on in the members' personal lives and their experience of the actions is brought back to the group for reflection. The contrary would be an *inside inquiry* where only what occurs within the group itself is considered as data. As I will detail later, it is this data of personal experience that the members will bring back that undergoes further reflection, sharing and development of new actions.

So in the participatory back school process instead of the predetermined schedule and curriculum of a traditional back school, we find the co-researchers coming together to engage in cycles of reflection and action that generate the back school's agenda.

Adapted from <http://bath.ac.uk/carpp/layguide.html> there are four phases to this systematic collaborative inquiry process of meaning-making:

Stage 1: The first reflection phase for the inquirers to choose.

\* The focus or topic of the inquiry and the type of inquiry

- \* A launching statement of the inquiry topic.
- \* A plan of action for the first action phase to explore some aspect of the inquiry topic.
- \* A method of recording experiences during the first action phase.

State 2 : The first action phase when the inquirers are

- \* Exploring in experience and action some aspect of the inquiry topic.
- \* Applying an integrated range of inquiry skills.
- \* Keeping records of the experiential data generated.

Stage 3: Full immersion in stage 2 with great openness to experience; the inquirers may

- \* Break through new awareness
- \* Lose their way
- \* Transcend the inquiry format

Stage 4: The second reflection phase; the inquirers share data from the action phase and

- \* Review and modify the inquiry topic in the light of making sense of data about the explored aspect of it.
- \* Choose a plan for the second action phase to explore the same or a different aspect of the inquiry topic.
- \* Review the method of recording data used in the first action phase and amend it for use in the second.

These four stages complete a full cycle from reflection to action to reflection and the number of cycles varies. Given the relatively brief duration of my study I anticipate up to two full cycles will be completed.

Heron and Reason (2001) point out skills that must be developed to avoid having the collaborative inquiry process from degenerate into uncritical subjectivity:

- *Research cycling.* Insuring that the group moves through several cycles and avoids the group becoming mired in either a single action or reflection.
- *Divergence and convergence.* Maintaining a balance of the natural ebb and flow between the two is important so the group does not become either too focused or too divergent in their inquiry so that practical action is lost.
- *Authentic collaboration.* Inter subjective dialog needs to be maintained to be truly collaborative so no one dominates or is left out of the group.
- *Challenging consensus collusion.* Making sure all members exercise their right and responsibility to challenge the group when they sense collusion (absence of critical intersubjectivity) in any form is present.
- *Managing distress.* Inquiry into a human condition such as chronic pain is apt to generate powerful emotional responses to include anger, fear, anxiety and other repressed distress. Such responses need to be managed and acknowledged appropriately to maintain the group.
- *Reflection and action.* Groups tend to lose balance by engaging in too much of one or the other. There needs to management of the balance and a way to move the group forward out of too much of either one.

- *Chaos and order.* The downfall of no set reference agenda or curriculum in a democratic process is chaos. Knowing when and how to return order within the democratic process is a critical skill.

As a collaborative inquiry, the following represents the general approach and outcomes that I will need to have delineated for approval by the Human Research Review Board (HRRB). In its purest form this section would be confined to broad-based generalities since the group would determine all of these issues, from frequency of meetings to sampling method (Heron and Reason, 2001). The participatory back school will be modified to the degree necessary to satisfy the concerns of any approving HRRB.

The collaborative inquiry will be titled *Active Back Support (ABS)* and based on the method of Heron and Reason (2001). The program will be eight weeks long, meeting weekly for two hours. Following the initial organizational meeting that will mirror Heron and Reason's proposed agenda (2001, p. 186), the remainder of the agenda will be composed of cyclical periods of action and reflection. The action will include the extended epistemology of the four ways of knowing as outlined earlier by Heron and Reason. I will serve as a partial participator, acting as the facilitator and a co-researcher in the collaborative inquiry. The data collection will be ongoing, including some preset data collection as well as collecting that data determined by the group to be of interest. I will insure the group maintains internal validity, reliability, external validity, and a high ethical standard of practice through the specific procedures we use in data collection, data analysis, and presentation of the findings.

The possible outcomes may include but would not be limited to:

- A thick, rich description of living with back pain through the cycles of action and reflection of the ABS.
- Comparisons of those experiences to historical experiences. A description of the similarities and differences.
- A description of what new or creative meanings of living with back pain emerged through the inquiry.
- A description of the new skills or actions that were learned.

### *Selection of the participants*

As stated in the section on participatory action research, the sample selection is made purposefully for a full and rich description of the experience of chronic back pain. Leaving the selection open to the broadest scope of participants possible will hopefully provide the richest subject matter compared to the restrictive sampling for most back schools (Merriam, 2001; Patton, 2002). My intended sample size will be 3-4 participants from a group of 7-8 including myself. My sample will be solicited from local newspaper ads requesting volunteers with the following criteria:

- Chronic spine pain (greater than one year duration).
- Clearance from attending physician.
- Availability for the entire 8-week period.
- Willingness to actively participate in the actions between meetings.

From the group I will select 3-4 individuals from which to gather my cases. I will allow my criteria for selection to emerge based on the characteristics the co-researchers present in the opening session. I will be looking for opportunities to offer rich and varied experiences of living with chronic back pain. Everyone in the group will be asked to complete all of the data input tools and participate in the interviews to provide continuity and eliminate any experience of being “not as important” or other concerns of personal worth to the process.

### ***Outline of the 8-week-long School***

The concept of a participatory back school contrasts in significant ways from the traditional back school curriculum. I would like to give a general outline of the process for those not familiar with collaborative inquiry.

Intake process: Prior to the group meeting, I will meet with each potential participant for their intake interview, collection of their physician consent, and completion of the intake pain and function scales. This process should take sixty minutes per participant.

Session One: The first two hour session is a very full session that includes introductions, orientation to process and selection of the initial action cycle. Participants will be encouraged to reflect and offer action items that they believe would support their living with chronic back pain. These action items could include topics presented in other venues that remain unclear, topics that they have heard of and want more information and experience using, or emerge in the group discussion. As facilitator I will also offer at the end of the discussion other topics commonly included.

The group from that list of possibilities then selects the agenda for the first

action cycle. The initial action is presented, practiced and the guidelines for home practice/reflection are agreed upon and clarified.

Sessions 2-7: the group then continues with the cycles of action and reflection outlined earlier. During these cycles they may decide to spend more time on specific area, drop an item from the agenda because a new topic of greater group interest has emerged, etc. Each class will include a check in from each individual to the group of their experiences and insights since the last session. There will be a period of instruction or demonstration, followed by practice of those actions, reflection on that experience and more group discussion and sharing as critical intersubjectivity. The sessions will close with clarification of responsibilities for home action/reflection and who will be responsible for the next sessions instructional/demonstration period.

Closing Session: The final session will have a celebratory component to it where co-researchers share their discoveries from the inquiry. This can include stories, song, music or any manner of presentational knowing, as well as propositional sharing. There will be time for reflection on both critical and appreciative feedback followed by a group sharing of that feedback. The session will finish with a discussion of what, if any continued action the co-researchers intend to pursue as a result of the course. This sets an intention to maintain what was intended to be the start of a process, vs. a limited, healing intervention with an endpoint.

Outtake Exit Process: I will meet for one hour with each participant after the closing session. In this meeting we will complete the exit interview, the exit scales, and answer any remaining questions.

### *Collection of the data*

I will rely on multiple data inputs in this study. As a partial participant in the group decisions, I will present to the group a list of potential possible choices (Patton, 2002; Merriam, 2001; Stake, 1995). These forms of data collection may include:

- Recorded weekly group sessions (audio/video).
- Home journals of reflection and documentation of action.
- Pre/Post-session quality of life and functional scales.
- My personal observations of the group.
- Chosen presentational knowing generated by the individuals.
- Entry and exit interviews with the participants.
- Input from outside the group such as family members etc. This would be done within the guidelines of infringement of the group boundaries (Heron and Reason, 2001).

I will then construct the individual cases from the data collected in the collaborative inquiry of the participatory back school. I will also supplement that data

with member check-ins, requests of them for clarification or contextual background surrounding experiences of interest.

### *Encountering the Data*

#### *Data Analysis Procedures*

##### *Simultaneous analysis and collection*

My analysis of the data will begin immediately following the completion of the Intake session. Data collection and data analysis should occur simultaneously (Creswell, 1994) and Patton (2002). My initial analysis will focus on identify the participants who appear to offer the richest and most varied experiences as my 3-4 cases. Following this selection, I will then be able to reduce the volume of data requiring my analysis from the remainder of the group each week. As a collaborative inquiry the group's selection of the exact nature of the data remains to be determined by the group the first session. Each week following the session I will review those sources of data for the individual cases.

##### *Specific analysis procedures*

There are five strategies for data analysis: *ethnographic, narrative, phenomenological, content analysis/analytic induction, and constant comparative* (Merriam, 2001). Of the five strategies for data analysis, I have chosen the constant comparative strategy. The following list the five strategies and my rationale for inclusion or exclusion in my study:

Ethnographic Analysis – ethnographic research focuses on culture and society, and researchers often use categories such as the economy, social

demographics, life situations, and the environment. I will not be focusing on these categories in my study.

Narrative Analysis – narrative research focuses on the ways in which people experience the world and it gathers and presents data in terms of stories about people and stories told by people. Portions of my data may be in this form, either taken from the interviews, the interactions within the sessions or my recollection of events as they unfolded. I will attempt to bring the experience to life for my reader through either my words or the stories of the individual's themselves. I will not be using this as my primary strategy given the other forms of data collected for my case.

Phenomenological Analysis – The focus here is on examining the essence of experience, which includes the critical bracketing of the researcher's assumptions and experience in this form of data analysis. While I will need to maintain awareness of my assumptions and I do want to relate their experiences, I am not looking at such an in-depth search for the essence of what will surely be multiple experiences documented through the back school.

Constant Analysis and Analytic Induction – Constant analysis is normally used to apply to a standardized measurement. Analytical induction typically focuses on refining a study to stay in line with a guiding hypothesis. My study contains neither a hypothesis nor measurable data. Both of these forms of analysis are more appropriate to quantitative studies. While I am not seeking to develop a theory, I am receptive to

whatever conclusions, insights, and forms of understanding emerge from the data. Therefore elements of this strategy will form the core of my analysis.

Merriam (2001) describes how Constant Comparative Analysis was originally associated with the research methodology of Grounded Theory. This strategy emerged from the Constant Analysis strategies and is now used by many researchers not interested in generating substantive theory. Furthermore constant comparative analysis is compatible with the inductive, concept-building orientation of all qualitative research. My overall approach to data analysis will include the constant comparative method.

My purpose in utilizing a case study methodology is to understand the case in thick, rich detail. The purpose of the constant comparative analysis is as a tool to note emerging patterns and meanings from the data collected. In addition to a simple narrative description of that data I will stay alert for categories of meaning and insights that may lead to theory development or support existing theory. Again the emergent theme of qualitative research anticipates, but does not control the product of analysis. That the researcher often takes analysis to another level during the study is not unexpected (Merriam, 2001; Patton, 2002).

In order to develop my approach, I had to depend on the insights and experiences of numerous authorities. I propose to use an amalgamation of approaches and fully anticipate that once into the process, I will modify my approach further. I will also be teaching a class this spring here in Scottsdale where I will collect and analyze the “data” in a similar manner in order to refine my technique. The class is not intended as research, but as an adult education class at the local community college. The students’ homework

will consist of responding to questions that will be asked within this study. That material will allow me test the following proposed process of analysis before my actual study.

To date I have reviewed the procedures described by Creswell (1994), Stake (1995), Merriam (2001), and Patton (2002). The following procedure is the general approach I will use to analyze my data:

1. Go through the Intake document and interview. I will make notes, consider the data thoughtfully and note any questions that come to mind. I will also record any more general notions that occur to me in this review in regards to the larger project.
2. I will then group the notes that seem to belong together after this first review.
3. I will repeat these two steps with all of the selected case documents.
4. I will then merge the groups and refine any labels I may have initially applied to a group.
5. On the ensuing week's data I will repeat this process and note how the categories of earlier data inform subsequent readings and insights regarding my understanding of their experience of the back school.
6. When all of the data has been examined and I have read over the data several times to get a picture of the whole of their experiences, I will examine the categories to see if any central categories emerge and seek to determine if there is any linking of categories that reveal patterns or explanations that are helpful in describing what happens in a participatory back school.

In my reading of the data and observations of the sessions I will be open to insights and intuitions that may occur. As a co-researcher I will also share these in the group as part of the critical intersubjectivity and remembering my sharing may lead to a profound learning for myself or a group member. I will also try to maintain awareness that I cannot possibly understand or even describe all of the data. My purpose is to understand the experiences within my case.

### *Analysis of the data*

In analyzing the data, I will not stop at merely relating narrative descriptions of the participant. Through my filter as the research instrument I hope to be able to observe and draw out not just the story, but to also “hear” the meaning to the individual who is relating the story. The collaborative inquiry process is ideal for capturing this in the cycles of reflection where what is of value and how it contributes to their flourishing as a human being are core themes. These types of in-depth insights will allow readers to glimpse the impact of the participatory back school, against which they can reference their or their patient’s experiences with traditional back schools. My purpose is to understand the case. If I can present the analysis of the data in a manner of allowing the reader to experience the participatory back school at some level, then I will have succeeded. I do not intend to take the analysis deeper to the level of category construction or theory development. As I related in the first chapter regarding the significance of the research, this study is to lay the groundwork for those types of studies in the future.

### *Findings*

As a partial participant in this collaborative inquiry, I will request the agreement of the participants to allow the data collected to be presented in an anonymous fashion as a portion of this study. Ordinarily the participants agree to how this data and the results are presented, by whom, and where (Heron and Reason, 2001). This agreement will be tempered by their input through the process of validation and quality of the research in the next section.

The open, emergent aspect of the collaborative inquiry leaves open many of the specific details of the exact form of the data that will be gathered. My case construction obviously is related to the form of the data. Consequently the precise form of my findings presentation is unknown. The following reflects some generalities about what the form of the case study may take on as I construct them:

- A thick, rich description of the selected individuals' experiences of the participatory back school.
- A description of the meanings, significances and related changes in quality of life through the program.
- A determination of the overall perception of the sessions as to whether the process is meaningful, is attendance maintained and the comparison of pre and post intake data. Again, this comparison is not designed to determine causality, but if there is substantial variance with enhancement of function or quality of life, such findings may point future research questions.

### *Standards for Assessing Quality*

I found Merriam's (2001) summary that there is no simple answer to assessing quality in a qualitative study both a challenge and a relief. A challenge as so much of the burden falls on the researchers or the *instruments* themselves. The relief for me is the realization that particularly in a participatory action research study, it truly is a community pact centered on trust amongst the entire group...vulnerable but so much richer and closer to our experience of the phenomenon under study than some intrusive, non-human instrument.

I plan to address the matters of validity, reliability, and ethics in my CI according to the standards the group sets, but anticipate those standards will be along the following recommended methods.

### *Validity*

The matters of validity and reliability in qualitative research are described as attending to the issues of trustworthiness, authenticity, politics, reflexivity, praxis, enhanced understanding, and the integrity and ethics of the co-researchers (Heron and Reason, 2001; Merriam, 2001; Patton, 2002; Creswell, 1994). Heron and Reason stated specific concerns about countering consensus collusion and managing distress; also monitoring authentic collaboration, the balance between both reflection and action, and chaos and disorder.

### *Internal validity*

Given the participatory paradigm of this study, the internal validity is concerned with how well our research findings match the *reality* (Merriam, 2001) of such a worldview. No longer trying to create a correspondence to some Truth, the onus is on how well can we as a group convey our personal transformation experience during the study (Heron and Reason, 2001). There are a number of methods to insure that the co-researcher's interpretation of data matches the constructed meanings of the participants' (Merriam, 2001; Patton, 2002). We will be using the following methods:

- a. *Member checks.* As we undertake data analysis, I will communicate back to the members feedback regarding my and possibly their interpretation of their experience. If agreed upon this would ideally occur at sessions 3 and 6, embedded in our cycles of action and reflection, as part of the reflection process.
- b. *Triangulation of data sources.* We will use a number of sources of data, to possibly include some traditional quantitative measures as triangulation points, not in a quantitative comparison paradigm. These would be for both the members as practical action related touchstones and for future readership to anchor them in the unfamiliar waters of qualitative research.
- c. *Repeated observations.* We will be making weekly observations.
- d. *Peer review.* Roy Whitten (a member of our cohort) and I have agreed to serve as peer review partners for our respective doctoral studies. We are already reviewing each other's material and plan to continue this process throughout all stages of our projects.

- e. *Consensus collusion countering*. Each week within the meeting we will adopt questions and brief reflection periods where specific questions are asked about the validity of each voice being authentically aired.
- f. *Bracketing of researcher bias*. In addition to bracketing my own biases, the work of the partial participant maintaining balance between facilitator and co-researcher will be monitored by the group, particularly as we handle periods of emotional distress and chaos. Do I as the facilitator leave room for the group to intercede in determining our direction at those key points of creative ferment, or do I consistently “save the day” (Heron & Reason, 2001)?

#### *External validity*

Returning to the issue of predictability discussed in internal validity, the focus now shifts to external validity. Asking how well the findings of a study can be applied to situations is a working definition of external validity (Creswell, 1994; Merriam, 2001). Because there is openly no attempt to correspond with predictive single reality, qualitative research early on was considered *soft* (Patton, 2001). Such an argument has paled according to Patton, as the influence and impact of dynamic systems and chaos theories are brought into the social sciences. In my experience, nothing better describes the experience of chronic back pain than chaos and a dynamic system experience. Unpredictability, multiple influences from a myriad of interacting systems (families, peers, community, nutrition, environmental, etc.) all represent every moment of the lived experience of chronic back pain. Subsequently, the argument turns a full 180 degrees to ask how can a relatively inflexible, hard science of quantitative study ever expect to offer a singular, predictive course of action in supporting those with chronic back pain?

The process of a collaborative inquiry then becomes the inquiry *tool* in an era of uncertainty. Not some specific, formulated procedure, but a process of inquiry immersed in a lived experience that is comprised of multiple other system processes (Patton, 2001).

Coinciding with Merriam's (2001) suggestion to regard generalizations as working hypotheses, not conclusions, this view suggests the hypotheses remain open to discovery within every collaborative inquiry. Because each participatory back school will have its own unique mix of students, either diverse or relatively homogenous, their *lived experiences* are going to generate the conclusions, not their *responses* to some variable manipulation by the researcher (Heron & Reason, 2001). Hence the external validity will emerge for that class out of their adherence to their internal validity discussed earlier. Merriam (2001) further regards the process of generalization as a method of maintaining external validity. Generalization is defined how well the study can be taken into the user or reader's context or practice. This hallmark of qualitative research will be the true test of validity for my study. The collaborative inquiry method calls for such a radical paradigm shift from the traditional back school.

The process of engaging in a collaborative inquiry seems to paradoxically be a method that calls only those with high social ethics to participate, yet because of its dependency on self-reflexivity, remains vulnerable to abuse as well. This paradox holds some of its own solutions when the internal validity measures mentioned previously are maintained. Unlike the distant, lone researcher ferreted away in a laboratory, the collaborative inquiry facilitator is immersed not only within the community, but has openly called on the community to assist in maintaining the integrity of the study. Not

limited to single disclaimer on the release form, but a part of the design to be addressed cyclically throughout the study by the entire group. If the initiating researcher is self-disclosing and participating to include emotional wrestling with issues such as control, collusion, etc. then those human frailties have built in support for safeguarding breaches in ethics. The additional relief of not having to prove a hypothesis to make the study a success removes some of the ethical temptations to stray from the integrity of the study.

Some of the steps I will take to insure integrity are:

- The use of interview guides for all group and individual interview sessions.
- Adhere to the personal self-reflection and self-disclosure to the group as part of the collaborative inquiry design.
- Seek feedback from the group to include management of emotional distress, group collusion and issues of control/chaos/order (Heron and Reason, 2001)
- Allow participants may contact me at any point during the study and afterwards.
- Participants will give written permission for all interviews and group sessions to be recorded and transcribed, with the opportunity to review afterward the transcriptions/film.

Our findings will protect the anonymity of all of us. We will either express these findings in aggregate form or, when we do refer to someone individually, we will do so as the group determines, protecting their identity.

## ***Reliability***

Merriam (2001) stated that reliability within qualitative work should emphasize whether the conclusions are consistent with the data collected. In traditional back schools reliability was concerned with the degree to which the study could be replicated by others (Merriam, 2001; Creswell, 1994). This is one of the key distinctions between a traditional predictive, quantitative back school with its expert instructor and my participatory, qualitative back school with its learner participant facilitator. I do not seek to have my results replicated (do a, b, and c and get d), rather I am after demonstrating a process and a way of facilitating others in discovering meaning and flourishing fully within their experience of back pain. The reliability then rests on being *faithful* to the process of CI, not the data collected or analysis performed.

As a partial participant, while serving in my roles as a co-researcher and facilitator, there are some inherent issues around my roles that need to be held in awareness throughout the process to insure that our findings are consistent with the data we collect:

- a. *Transparency.* As initiating researcher I will openly reveal *all* purposes, procedures, and results throughout the entire study.
- b. *Peer review.* I will undertake this throughout the entire study, calling on not only my academic peer, but the other co-researchers as well.
- c. *Member checks.* In collaborative inquiry there are many dual roles. For the co-researchers they have to be participants and owners of their individual

experience, recorders of that experience, and also as reviewers of not only the final transcription of their *data*, but also how that data is finally presented.

The integral and participative nature of the participatory back school experience lends itself to a long and laborious process. I believe the current state of the delivery of services for those with chronic back pain justifies such an investment in effort and action. The next chapter will look further at that state of current services and the steps necessary to make this proposed study a reality.

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