

Chapter 1 Orientation to the Study

1.1 Introduction

This Participatory Action Research (PAR) study questions the efficacy of holistic learning strategies to promote the learning of developing leaders in the context of a developing country. My study seeks to understand whether, to what extent and how learning can be advanced by deliberately employing holistic learning strategies to narrow the gap between theory and practice, between left-brain and right-brain learning, and between cognition and emotion.

I open the field of adult education to *tri-dimensional (3-D) practice* as the dynamic combination of *holistic learning strategies* in *cooperative learning groups* within *spiritual learning environments*. I examine the relationship of each of the three constructs to holism and discuss the limitations of each. From a virgin research context extending throughout Mozambique, I gather empirical evidence which explores the efficacy of holistic learning strategies within 3-D practice with adult learners as administered by facilitators with minimal academic preparation.

My study also undertakes to test and refine the widely used model of Theological Education by Extension (TEE) by giving attention to problems cited by Kornfield (1976) and Gatimu, Gachegoh, Oyiengo, Kithome and Suwa (1997), and to apply my empirical research to issues cited by Brookfield (1995). Each of these issues will be briefly discussed in Section 1.3.

1.2 Critical Questions

In order to logically explore the efficacy of holistic learning strategies within the conditions of the research context, I formulated research questions to guide the study. “*How do holistic learning strategies facilitate adult learning?*”, the major research question, would have been presumptuous to ask without first asking, *if*, in fact, holistic learning strategies are likely to facilitate adult learning. If they do facilitate learning, then the major question has a logical base – *How do they facilitate adult learning?*

Another preliminary question guided attention during the study to certain limitations that were inherent in it: *To what extent can holistic learning strategies advance the learning of leaders in development when used by minimally-prepared trainers?* The wording of this second question recognises that the minimal preparedness of the trainers who utilise the holistic learning strategies must always be taken into consideration. The minimal formal schooling of the facilitator/trainers would probably mean that certain holistic learning strategies would be more accessible to them than others. The *extent* to which holistic learning strategies advance learning infers quantitative response but an accurate resting base line for the “learning” of the research population scattered across Mozambique was not possible to measure so findings towards the answering of *extent* are inferred, not measured numerically or comparatively.

1.3 Rationale

The rationale for this study has three sources. First is the contextual rationale because a global paradigm shift is taking place in the religious / societal / educational context of the research population of learners, who are introduced in the following paragraph, a shift which opens the door for them to engage in learning as they have not been able to do previously. The second rationale is described in Section 1.3.2 and is pragmatic – to refine, within the confines of the contexts of Mozambique, with a model which has had success with similar populations in other places with facilitators of other training. The third rationale is scholarly, contributing to research on *adult learning* or *learning*, particularly as related to recommendations by Brookfield (1995), as briefly explored in Section 1.3.3.

1.3.1 The Contextual Rationale

The title of my research [*italics mine*], “The efficacy of holistic learning strategies in the development of *church leaders in Mozambique*: an action research approach” implies the contextual rationale. Most of the learners are members of the Church of the Nazarene in Mozambique, and all of them are enrolled in the educational system of this international denomination which makes the Church of the Nazarene their over-arching theological and educational context, as well as one of their social contexts. The learners in the population are called church leaders in *development* because they are either in the process of being prepared for positions of leadership or they are already serving in positions for which they have had little or no training.

In the 1980s, the Church of the Nazarene began to face the reality that the dozens of Nazarene educational programmes which were preparing pastors for life-long ministry were inadequate at several points. The first lack was quantitative; there were not enough programmes to train pastors for the explosive growth taking place in some of the more remote and less developed regions of the globe (Walker 2000, RIIE 2003). Other problems in these areas included too few trainers qualified to train pastors and little material developed for pastoral training. At the other extreme, head-knowledge seemed to have taken priority over heart-experience as pastors were succumbing to moral failures; others had excellent academic records but failed in ministerial skills like how to care for their parishioners or how to run a board meeting. Still others seemed to know enough and to know how but lacked an awareness or ability to read their context, so failed at relevance (Vail 2000, Esselstyn 2003). The Church of the Nazarene was not alone in recognizing shortcomings in theological education. Noelliste (1993:5) recognizes “the growing dissatisfaction being voiced in many circles regarding much of what theological education does...[it] is being assailed for a plethora of faults: lack of purpose, the disparateness and inadequacy of its content, disconnectedness with the community of faith, insensitive policies, ineffective teaching methods, and many others. From Germany, another Evangelical educator notes similar problems (Schirmmacher 1999:4).

Systemic changes were needed in the Church of the Nazarene to prepare a greater number of pastors worldwide to staff the hundreds of new churches and to embrace diversity more equitably. Training programmes for trainers and learners needed to be developed which would extend pastoral preparation to populations

which had been deprived of formal education and who did not speak a major world language. Overall, pastoral training programmes needed to facilitate the spiritual formation of the ministerial candidates as well as their knowledge and know-how.

On the global level, Nazarenes voted in 1997 at the twenty-fourth General Assembly to shift the hundreds of its pastoral training programmes in the world to Outcomes Based Education. The exit outcomes of these programmes described what the ideal Nazarene pastor would *KNOW*, would *BE* and would *DO*. In order for Nazarene educators around the world to have a guide to help contextualize the programme outcomes to fit the diverse constituencies, committees created a tool called the *International Sourcebook for Ministerial Development* (Bowling 1997, Esselstyne 1999).

Nazarene educators around the world are now in the process of developing new curricula. With Nazarenes in more than 150 world areas, publishing holiness literature in 97 languages, the task of restructuring curriculum is a formidable one. There are 56 Nazarene educational institutions around the world in forty different countries in which 497,597 learners reported in 2006 (Stone 2006).

Each Nazarene “Region” (“Africa” is a Region) has a committee to assist in this development. The advisory groups established are called Course-of-Study Advisory Committees (COSACs). Identifying a process to enhance the achievement of stated outcomes was definitely a big step forward, but there is, still, a long road ahead. In Mozambique most of the members of the PAR teams and I are Nazarene educators. We sit on several committees in different parts of Mozambique and Africa in which we engage in dynamic discourse and discovery with other educators involved in this process and we seem to be wrestling with similar questions in several different places.

Since 2000, more than 300 pastors have been trained to train others to pastor in Mozambique by myself and other members of the several PAR teams I have led. These pastor trainers are called “monitors” and are currently teaching 1,272 Nazarene learners in 97 local churches which serve as educational centres of the extension system called “Nazarene Bible Institute of Lusophone Africa” (IBNAL).

Our team’s normal access to the larger student population is through these monitors who speak the maternal languages of the leaders. The monitors, with whom we have established rapport through their period of training, have the linguistic and functional capabilities to extend our research deep and repeatedly into rural pockets of the country. Through these monitors, we are discovering more about how learning takes place with adults in contexts like those in rural settings in Mozambique. Other monitors and centres are located in Angola but are not part of this study.

The “classroom situations” of these Nazarene learners in Mozambique are surely some of the most unique imaginable. Although we PAR team members usually work with the monitors, we occasionally test material directly among these learners. In 2001, I field-tested a newly designed course with a group of 70 adults in southern Nampula Province. In a mud-brick little church with four holes for windows the learners sat hour after hour on straw mats on the mud-packed floor. Most of them were already serving as pastors; some of them were barefoot and all

of them seemed to be hungry – hungry to learn! They said they yearned to be pastors who are trained for what they are doing. Their physical setting left everything to be desired but their exemplary motivation to learn keeps those of us on the PAR teams “laying down track before their train” so they may arrive at their destination.

At the outset of this research, some aspects of this learner population were known, others presumed:

- The groups of learners which study together have divergent academic histories; some of them have little formal schooling, others have considerable, this diversity is likely representative of most of the learning groups.
- The majority of the learners presumably
 - have a low level of schooling,
 - are at least 15 years old with the majority being mature adult learners, older than 15,
 - are already serving as pastors.
- The aspect presumed to be common to all of the learners is their motivation to spiritual values, specifically to Christian values.

Besides informing Nazarene educators within the Nazarene educators outside of Mozambique, this PAR project also informs those within the system by enabling the facilitators and the learners to share experiences across geographic divides on the national level. The learners and trainers in the Nazarene Bible Institute of Lusophone Africa (IBNAL) are enabled by the results of this study to better understand how their own learning takes place encouraging them to exercise their service to God with greater integrity and competency to all the people of their communities and their parishes.

1.3.2 The Pragmatic Rationale

The second rationale is pragmatic – to test and refine the model of Theological Education by Extension, the “TEE Model”. This informal system of training Christian leaders has had wide international application on other continents and across Africa, including in Mozambique. At an All-Africa Conference of Theological Educators in 1990, a list of weaknesses in the TEE model, compiled by Kornfield in 1976, was presented for discussion. The weaknesses included several related to the facilitators being sent out from a residence institution to outlying extension centres. My PAR research attempts to refine the TEE model by taking into account these recognized weaknesses and modifying the flexible parts of the model to improve it. Besides the weaknesses compiled by Kornfield, another problem with TEE programmes, cited by Gatimu *et al* (1997:14), is the lack of academic recognition outside the TEE programme. This aspect is also taken into account in this study.

I acknowledge at the outset of this research a third and broader-based limitation described by Mkabela and Luthuli (1997:54): “language has played a primary role in hampering African education...this calls for a search for alternatives to improve the situation and to allow mother-tongue instruction to come to the fore”. Within the model the PAR team members implement to observe holistic learning

strategies in this research, the facilitation of learning in the mother-tongues of the adult learners of my population receives deliberate and repeated attention.

1.3.3 The Scholarly Rationale

The third rationale is scholarly, seeking to contribute a different and valid perspective on *adult learning*. Brookfield, a renowned specialist in adult learning, (1995:7) suggests ten issues which need to be addressed if research on adult learning is “to have a greater influence on how the education and training of adults is conducted”. My research is conducted to add knowledge to five of the areas which Brookfield identifies (1995:7-8):

- Other cultural perspectives to break the Eurocentric and North American dominance in research in adult learning;
- Solidify qualitative studies by means of survey questionnaires or experimental designs;
- Work on spiritual and significant personal learning;
- Understanding adult learning as a socially embedded and socially constructed phenomenon, and
- Attention to the interaction between emotion and cognition in adult learning.

Brookfield argues that the attempt to construct an “exclusive theory of adult learning – one that is distinguished wholly by its standing in contradiction to what we know about learning at other stages in the lifespan – is a grave error”. He proposes that variables other than chronological age may be more significant in explaining how learning occurs. He cites (1995:1) “culture, ethnicity, personality and political ethos” as potential variables of significance, but there may be others.

Therefore, the enquiry constructed across the experience of this project seeks to contribute knowledge on the scholarly exploration about how adult learning takes place. If this research shows that holistic learning strategies do enhance learning, including the achievement of complex outcomes like attitudes and character traits, then the strategies which are verified as effective will be of interest to many educators, particularly of adult learners, and to other educators in the Church of the Nazarene and other similar contexts. The results of this research will also interest educational providers and trainers of adults who have minimal formal schooling, like users of the TEE model who will also be interested in the refinement of the widely-used model.

1.4 Literature Review

The development of leaders has been the subject of centuries of research, debate and modeling. The Gospel writers and the writings St. Paul are replete with educational terms like “learning”, “knowing”, “teaching”, “thoughts”, “imitation”, and so on. Whole orders, movements and mission bands have been spawned to evangelize and *teach*. Several of these developed and perfected systems of learning within groups of adult learners in diverse groups and present aspects quite relevant to the context of this project: John Wesley created “societies” and “bands” within the Anglican Church which impacted all of England and generated the Methodist Church (Snyder 1980, Kivett 1995); Freire within Brazilian, then other systems of public education, set up “cultural communities” of “dialogical

education” based on the then-current model of Catholic Church “Christian Communities” (Taylor 1993); Frank Laubach in the Philippines, then throughout Asia, then Angola, “devised ‘picture-word-syllable’ correlations that could teach illiterate peoples to read” (Foster 1998:47); and those of the Theological Education by Extension (TEE) movement, first in Central America, then in Africa, wrote and still write programmed student texts which are the “teachers” and train trainers to be facilitators of the learning process (Winter 1969, Thorpton 1975).

Centuries of reflection on the origin, nature, control, stimulation and organization of humankind’s capacity *to think* has generated whole disciplines of commentary as well as whole libraries of research and speculation. Classical thinkers renowned for their mental disciplines and capacity to inspire others in their thought systems will be considered in this study. Since 1533, the “spiritual exercises” of St. Ignatius of Loyola have been used to deepen spirituality by employing contemplation of spiritual “mysteries” using a collection of directed and repeated mental exercises. The 20th century also produced champion practitioners of mental devices which contributed to their character including the victims of undeserved solitary confinement, Richard Wurmbrant (1982) and Dietrich Bonhoeffer (1953), describe in their autobiographies the secrets to maintaining mental and spiritual well being in spite of dire circumstances. Paulo Freire’s “Método” (method of using ten carefully compiled drawings to encourage analytical dialogue) guides pre-literates to speak their world as a rehearsal to literacy (Taylor 1993).

My literature review also includes forays into learning strategies which involve learning in various formats of enactment and social problem solving: scenarios, role-playing, representation, dramatic readings, mock trials, etc. Through my literature study I also discovered that learning strategies which are practiced by those involved in adult learning (Brookfield 1986, 1987, 1988, 1995, 1998, 2004, Cranton 1992, Gravett 2005), transformational learning (Payette 2002, Mezirow 1999, O’Sullivan 1999), understanding music in the brain (Jourdain 1997, Storr 1992) balanced learning, authentic cooperative learning (Gatimu 1997, Holland 1975, Winter 1969), cogmotics (Copley 2000), whole-brain learning (Herrmann 1994, De Boer & Steyn & du Toit 2001), brain-based learning (Caine & Caine 1991, Jensen 1994, 1997, 1998, Sprenger 1999) are among those effective for the learner population of my study.

In order to better understand “thinking” in general, I studied the work of different scholars’ work on multiple intelligences (Gardner 1983, 1993, 1997, 1999), (Armstrong 1987, 1993, 1994), emotional intelligence (Goleman 1996, 1998), spiritual intelligence (Zohar & Marshall 2000) and lateral thinking (De Bono 1973, 1976, 1985). Others like Herrmann (1994) and Gross (1991), as well as the brain-based learning advocates mentioned above briefly describe several models of brain functioning, but in order to understand brain functioning more fully, I read extensively from those who describe the complex modular brain theory: Harth (1982, 1993), Restrack (1979, 1988, 1994), Bergland (1985), Gardner (1987), Csikszentmihalyi (1993), Pinker (1997). For more about memory and other specific brain functioning I read Brennan (1997), Gellatly and Zarate (1999), Grandpierre (1997), Perkins (2000), Newberg, D’Aquili and Rause (2001), and finally from neuro-scientists reported by Cabeza (2002) and Cohen (2006).

However, the review of literature in books, learned journals, and the internet, did not lead me to authentic knowledge about my learners in their contexts. The adult learners of Mozambique, especially those in the remote, rural settings, have had scarce, if any, attention by researchers to their educational needs. This Participatory Action Research project sets up and assesses a holistic system of learning in which facilitators are trained and supported to use holistic learning strategies in cooperative groups within spiritual learning environments, i.e. to utilize 3-D practice for adult learning. The primary language for the field research of our PAR team is Portuguese, the official language of Mozambique. Other research may follow to conduct longitudinal studies on the holistic learning strategies which this study describes. A secondary result of my research will be more accurate demographic data on Nazarene adult learners in Mozambique.

1.5 Theoretical Framework

My research was undertaken to both fill a gap in the knowledge base, as described in the rationale, and also to test the integration of theory to practice within the defined context in Mozambique. Kember (2000:28) describes Action Research [*italics mine*]:

Outcomes of systematic inquiry are made public and subjected to normal criteria for scrutiny and acceptance. Action research does, then, contribute to *both social practice and the development of theory*. Its advocates claim that it brings theory closer to practice.

My PAR study adheres closely to other characteristics which Kember (2000:24) identifies. First he says that Action Research is “concerned with social practice”; the social practice under scrutiny in my study is the interaction between facilitators and learners in churches acting as learning centres scattered across Mozambique. The “aim towards improvement” which is targeted in my research includes the narrowing of several gaps: theory to practice, combining right-brain and left-brain learning and cognitive and emotional learning. The project is organised into four phases, each of which is cyclic, illustrated by spirals which I deliberately use in several tables of this report in order to keep the cyclic nature of the research ever before the readers. Kember (2000:24) also says that Action Research is “pursued by systematic enquiry”; this is not just posing a simple question, but establishing a research design which reflectively and systematically questions and analyses the responses. The system of enquiry of the study in Mozambique is further detailed in the next two sections of this chapter.

Kember (2000:24) also identifies Action Research as “participative” and “determined by practitioners”. The breadth of participation at all levels and throughout every phase of planning, enquiry, reflecting and analysing data of this research make it very difficult for me to write *my* research; I have led each phase and each team of the research but it is very much *our* research. I will continue to write *my* for the sake of research convention, but, because it belongs to so many other participants, I will also continue to report back to the many who participated throughout. The educators who proposed that learning we extended to the learning population of this research made the decision to do this before I moved to Mozambique. They were able to effectively share with me their vision for training facilitators to facilitate learning across a country that they knew well, and I

had to learn. In Chapter 3, I describe in more detail how these aspects of Action Research correspond to my study in Mozambique.

Epistemologically, the PAR study in Mozambique is within a critical slightly interpretive paradigm. Critical discourse is one of the major research tools used (within what I call “round table discussions” which are described later). It does not set out to test a hypothesis, but rather to seek consensus among participants with the aim of determining plausible explanations for the findings. The generalisability of the findings is “medium”, i.e. broader than the sphere of the participants but not as broad as a general law or theory about learning. The subjects are investigated in their natural settings by those trained by me to do action learning and action research, so I am a participant, but my position is usually at a distance; I am not immersed in their social settings. Overall, my study seeks to understand learning not to change learning, but to facilitate it, hence, the overall epistemological position is critical with interpretive elements, and clearly not positivistic.

1.6 Research Design

As continuous assessment is normative for Action Research and also beneficial for curriculum development, Evaluation Research (Mouton 2002:158-162) provides an approximately appropriate design for this PAR study. The use of Evaluation Research for implementation or for outcome studies or for qualitative studies of empowerment seems to promise a close fit.

However, there is a framework which promises more accuracy for the focus within the human system researched, so, I am opting to create a design called “Arboric Research”. This design type may be illustrated by the analogy of viewing living organisms under a microscope. When users focus the lens of a microscope on a living bacterial colony, they may intently access and observe what is going on in front of their eyes. However, while focusing they must also always keep in mind realities which lie outside the focus of the lens but which are affecting what they have in view. The variables of temperature and air critically affect the organisms that are being observed. These factors must be controlled to avoid the death of the organisms. Moisture at the proper level must be present to insure visibility and fluidity; bacteria out of the range of the lens may be affecting the sub-set being observed, i.e. the whole picture is quite different than the sum of its parts.

The framework of Arboric Research takes into account the “whole” while the “parts” are being observed and changes that are occurring in the human system in which the research is being conducted changes during the time of the research; These dynamic realities constitute the main reason to use it either by itself or as a frame for another design. Arboric Research may be chosen as the research design as described in tabular form in Appendix B using the format of Mouton (2002) and in narrative below. Arboric Research also allows other research designs, like Participatory Action Research, to function within it, using it as a flexible frame for another design.

Arboric Research aims to assess a whole human system by critical discourse about its parts, accurate description of the parts and of the inter-relationships between the parts and the whole and between the several parts. Arboric Research is guided by the over-arching theory that critical observation of the whole instead of the parts plus integrative analysis are reliable because every part impacts the

whole; the whole impacts the parts; the parts impact each other and isolation or dissection of the parts means alteration of the natural state at best crippling or death at worst. This meta-theory prescribes research questions which are typical:

- How do the parts impact the whole?
- How does the whole impact the parts?
- How does the germ impact the mature and vice versa?
- What are the elements of the environment and the relation of it to the whole, and the relationship of the whole to the environment?

The empirical design classification of Arboric Research includes hybrid data, both quantitative and qualitative allowing all available data collection methods, assuming medium control. The sampling aims to extend to as much of the whole as possible with full participation encouraged, so it is highly useful to inform the specific “whole” and affirms ownership by the “whole”. It recognises impossibility to reach the whole, and the subsequent sampling errors as well as participant bias. The analysis of data in Arboric Research also recognises the changing whole so includes integrative, synthetic descriptions; comparative analysis, including relational, chronological and dialogical; descriptive statistical graphics including tables and examples. More details about how my PAR research fits into the Arboric framework are described in Chapter 3.

1.7 Data Collection Plan

The terrain of this research is vast as the learners and facilitators are scattered among 81 to 112 (depending on the year) centres across the country of Mozambique in each of the ten provinces. Another six centres in Angola are part of the same system but not included in this research. The process of this **PAR** Study will be described in more detail in Chapter 3.

This **PAR** Study is being conducted in phases of collection, application, assessment and reformation, as illustrated by the spiral in Table 1.1. The members of the PAR teams vary from team to team, and I have been the facilitator and lead researcher of each of them. The team members actually participate in the planning – action – reflection cycles. The advisors do not usually meet with the team, but are abreast of happenings; they advise.

Phase Four: 01/2003 – present

- PAR 5 in repeated assessment of learning strategies and learning environments in the network via site visits, Delphi technique,
- Extensive assessment via hybrid surveys for crystallization

Phase Three: 07/2002—12/2002

- Data collection through monitor training across Mozambique
- Facilitation of holistic learning strategies throughout system by production of written materials to support monitors in their learning settings
- PAR teams 1, 2, 3 and 4 in two action learningshops
- Multiple groups assess processes and products of action learning activities
- Formation of PAR 5

Phase Two: 1/2001 – 06/2002

- Formation of PAR 3 in Maputo for continuing data collection and assessment
- PAR 3 advisors: Grant-writing
- PAR 2 begin data collection in remote centres

Phase One: 05/2000 – 12/2000

- Formation of PAR 1; PAR 2
- Preliminary data collection and analysis
- Refinements in TEE model and Nazarene extension model
- Wide use of holistic learning strategies with PAR 2
- Holistic learning strategies to the field



Table 1.1 Phases of Data Collection and Assessment of Holistic Learning Strategies

In the column on the left in Table 1.1, besides the dates of the phases, I also identify some of the principal actions of each one. The spiral on the right represents the cyclical, non-linear nature of Participatory Action Research.

1.8 Instruments Used in Data Collection

This Action Research Project employed multiple methods of data collection from multiple levels and multiple teams of action researchers and action learners in order to crystallise the results. In pursuit of answering the major research question, “How do holistic learning strategies facilitate adult learning?”, it was necessary to know if, in fact, they do, so this question, “Do holistic learning strategies facilitate adult learning?” is asked repeatedly during the first cycles of the study. If they do, then, “To what extent can holistic learning strategies advance the learning of leaders in development?” This second sub-question could only be asked in sequence after ascertaining that the holistic learning strategies, were, most

probably, facilitating adult learning. Then with more assurance, could I lead the PAR teams to probe into the major question – “How do holistic learning strategies facilitate adult learning?” The logic order of the research questions then affects the chronology. I do not mean to say that “if” was fully answered before the research proceeded to “to what extent” then on to “how”. In the cyclical nature of PAR, tentative answers to each were formed as evidence was collected, so data pertinent to all three questions begins to surface early on in the data collection. The “if?, to what extent? and how?” sequence appears repeatedly in the empirical findings of Chapter 4 and the reporting of Chapter 5.

In Table 1.2 below the different research instruments used are specified.

RESEARCH QUESTIONS	Interviews: direct and via e-mail	Literature Reviews	Textual Analysis	Hybrid Surveys	Round Table Discussion	Video and still photos	Site visits	
Do holistic learning strategies facilitate adult learning?	✓	✓	✓	✓	✓	✓	✓	7
<i>To what extent can holistic learning strategies advance the learning of leaders in development when used by minimally-prepared trainers?</i>	✓		✓	✓	✓		✓	5
If so, how do they facilitate adult learning?		✓	✓	✓	✓	✓	✓	6
	2	2	3	3	3	2	3	

Table 1.2 Relationships between the Research Questions and Methods of Data Collection in the Efficacy of Holistic Learning Strategies in the Development of Church Leaders in Mozambique: an Action Research Approach”

Interviews, literature reviews, textual analysis, hybrid surveys, round table discussions and site visits were used multiple times. Video and still photos were used less frequently. Data analysis was done by comparison between voices, textual analysis and simple descriptive analysis techniques using the software package “SPSS”. In the many tables of Chapter 4, comparison of the “voices” are reported from the several different sites where “round table discussions” occurred. When the voices repeat themselves, they are identified as “recurrent themes” and the data begin to “crystalise”, that is to take shape and harden as a crystal in nature actually forms. Crystalisation is one of the modes of verification. The large

hybrid survey of 2005 added quantified descriptive statistics for comparison to crystalised findings to triangulate results to improve their reliability. Reliability of the results was also enhanced by the openness of the PAR team members with participants at all levels and during all phases of the project.

The limitations of this PAR study include the limitations typical of Arboric Research mentioned above, i.e. the possibility to access only a sample of the whole population and the medium (not high) generalisability of the results. Since the participation is very broad, participant bias as a source of error may also be broad. The crystallisation and triangulation processes mentioned above are methods to diminish the effect of participant bias, but it is still present. Typing errors on data entry is also a source of error. The limitation of language was taken into consideration. Portuguese was used between the other PAR team members and me; the languages of communication between other PAR team members and the sample research were Portuguese and the maternal language of the geographical site. The reporting was done in Portuguese, translated by another PAR team member and me.

The last aspect for discussion is validity. What makes this research valid? There are several aspects of support for the validity of the research. First, the virgin context of the research; the network of facilitators gave access to areas of the world whose inhabitants have never been studied within educational parameters. Second, the rigor of the research design contributes to the validation of the process and the findings. Then, the carefully generated research findings are validated by their usefulness to the three audiences described in the rationale, i.e. other educators of the international Church of the Nazarene, other users of the TEE model and Brookfield and his followers who recommended studies in adult learning from other-than-American and European contexts, studies of personal and spiritual learning, studies which involved questionnaires and/or surveys, studies which address cognitive *and* emotional learning, and studies which contribute to the understanding of learning as a socially embedded phenomenon. The PAR study in Mozambique speaks to each of these issues specified by Brookfield and makes some contribution to each (as reported in Chapter 5).

What makes the research questions valid? The major research question, “How do holistic learning strategies facilitate adult learning?” constitutes a probe for findings which are relevant to Brookfield’s recommendations about adult learning, in general, socially-embedded learning, spiritual learning and non-American/European learning. The question also generates findings which test the TEE model, and which offer Nazarene educators another perspective (that of learning strategies in general) to consider on their trek toward qualified outcomes. The other two questions validate the major question; *do* holistic learning strategies facilitate adult learning? If so, *to what extent?*

The following chapter presents the broad theoretical framework for the consideration of the major question.