Chapter 3: The Research Framework and Methodology:
Participatory Action Research (PAR)
Framed as Arboric Research

3.1 Introduction

This research qualifies as Action Research (AR) in general and specifically as Participatory Action Research (PAR) Research. Action research has been around for fifty-plus years. Noffke (2002:14) refers to a "host of predecessors…which help us understand the diversity of meanings the term has acquired". Beyond diverse meanings of the terms Kemmis (1993:1) goes on to say that there are a variety of traditions of educational action research” and refers to waves of AR, including the ones in the 50s then the 70s which, he calls “de-natured”, i.e., cautious in political stance, focusing on the methodological rather than the emancipatory aspects of the research. There is, then, wide difference in the effective aims of action research; the question in this regard is: “Who will be affected by the action and the research?”

Action research in education is, in the least, good reflective educative practice and that practice has been personally required of me for the thirty-five years that I have lived and taught in divergent contexts among diverse populations of the world. I resonate with Reason (2003:1) who says:

Action research is an attitude toward enquiry, not just a methodology ....I do not separate my scientific enquiry from my life. For me it is really a quest for life, to understand life and to create what I call living knowledge – knowledge which is valid for the people with whom I work and for myself.

Zuber-Skerritt and Kalliath (2003) organize seven commonly shared values and principles of a culture of action learning and action research (ALAR) by using the acronym ACTIONS:

- **A** dvancement of knowledge and learning
- **C** ollaboration
- **T** rust, truth and honesty
- **I** magination and a vision for excellence
- **O** penness
- **N** on-positivist assumptions and beliefs
- **S** uccess: Shared success

Each aspect cited in the acronym characterizes my research as follows. My research contributes to the Advancement of knowledge and learning by scientifically describing a population about which little scientific research has been undertaken – adult learners in Mozambique – and by applying the findings to scholarly dialogue as described in Section 1.3.3 The Scholarly Rationale. The research questions the efficacy of the learning strategies used in the learning of these adults and attempts to refine by trial and retrial the model of Theological Education by Extension.
In relation to Trust, truth and honesty which make possible real Collaboration, these values should pre-exist, at least to a certain extent, within the community network of the Church of the Nazarene of which the researchers, learners and leaders are all a part since the church fosters these values. However, fostering values and putting them into practice within the several levels and between the several levels of the participants are not automatic so the PAR teams intentionally facilitate the deepening of trust, truth and honesty within the learning system. Rothwell (1999:20) maintains, “While the team facilitator helps the group to function cohesively, it is ultimately the responsibility of each team member to work toward that end…of improved morale and work satisfaction”.

Kember (2000:27-28) reasons that a result of Openness is that the public scrutiny of the observation and evaluation cycles of action research bring theory and practice to closer accountability:

The action research cycle incorporates systematic observation and evaluation. Outcomes of systematic enquiry 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.

As discussed in the Contextual Rationale, Section 1.3.1, the Church of the Nazarene on a global level opened itself purposefully to narrow the gap between theory and practice in the Nazarene ministry. As the research in Mozambique is made public inside and outside the learning context, the process, the implemented products, and ultimately, the performance in ministry of the learners is continually assessed by a large and multi-layered audience. Verification by a multiple-level and multiple-voice consensus between the participants in a cyclical pattern as well as plausible explanations based on my interpretation of literature reviews attests to the “openness” of the research process.

Reason (2003) corroborates this procedure saying:

Guidelines for action research suggest as a first principle that the authors explicitly address the qualities they believe relevant to their work and the choices they have made in their work, and also the authors explicitly connect their own judgments to discussions in current literature.

Already in the writings of Chapters 1 and 2 I have tried to consistently demonstrate involvement and connection to the current literature. In this regard, Action Research manifests a style of reporting as well as collecting data.

The next quality of Action Research is Imagination and a vision for excellence. Actually a lot of imagination was required to even begin research in Mozambique because there is very little experience in a research mode within the Church of the Nazarene in general and in Mozambique in particular. Imagining that holistic learning strategies could be implemented in remote centres of the country is not commonly envisioned. Yet it was the vision existent in the mind of educators who could see it well enough to describe it to me, and then project the image for others to see, too. Other participants who begin to see the vision in their own
imaginations willingly and sacrificially involve themselves to build it. The motivation for excellence has kept all the PAR team members and me at the task of taking the research to a stage of excellent public reporting.

Action research is characterized by Non-positivist assumptions and beliefs. Positivist research, according to Kember (2000:10), 1) is scientific and employs experimental survey to verify or generate causal explanations and/or universal laws, 2) tests hypotheses and seeks generalisability through random sampling, 3) positions researcher as a neutral observer, 4) manipulates variables in experiment or holds them statistically constant.

In relation to these four positivist characteristics, the surveys conducted in my research generate descriptive and inferential data which add to understanding and plausible explanations, not causal explanations or universal laws. The testing of the model of Theological Education by Extension is for refinement not hypothesis testing. I am participant in the research process. The variables are dynamic variables of human social systems so none of these four characteristic describe my research. This shows that all of the qualities within the acronym of Zuber-Skerritt and Kalliath aptly describe my research.

In Chapter 1, I made reference to seven characteristics of Action Research worded by Kember (2000) which are included in Table 1.1. I mentioned that six of the seven are parcel of my research. Each of the characteristics is used below to introduce the further description of my project as Action Research (AR) in the seven following sub-sections.

3.1.1 Action Research as Social Practice

The social practice of concern in my project is multi-faceted because it is that of a whole learning system called IBNAL, so the social practice concerns the adult learner in his or her multiple contexts of life both in and out of the congregation which he or she leads; the social practice of the trainers of the learners (the monitors) towards the learners, towards the researchers and towards their administrators; and the social practice of the educator-PAR team members between themselves, in their interface with the trainers and administrators, and their less frequent social interface with the learners. The round table discussions which are such an integral practice of this research project facilitate the improvement of dialogue between the several contexts. The philosophy of my AR project agrees with Noffke (2002:21), i.e. that the role of AR is social transformation – in concerted efforts towards systemic change. I enjoy the spirit of Diez in Borda (1998:20): “Action Research is now a way of practicing Social Sciences by transforming the world with all those who wish to build their own history”. My project predicts that the adult learners in the education system of the Church of the Nazarene in Mozambique are among those who wish “to build their own history” and, consequently, transform their world.

3.1.2 Action Research as Targeting Improvement

There is a broad spectrum of possibilities in identifying or defining the target for the types of improvement which might be gained by Action Research. According to action research projects described by McNiff, Lomax and Whitehead (1996) the
improvement might be the personal and/or professional development of teachers. Hollinswork and Sackett (1994:262) suggest that teacher research could go as far as to lead to educational reform by

- reducing the gap between research and practice;
- demonstrating the problematic nature of ‘outsider’ knowledge in directing teachers’ work;
- emancipating educators from the positivist ‘domination of thought’ through their own understandings and actions;
- establishing the centrality of teacher-selves in research, challenging the privileged view of traditional research’s ‘objectivity,’ and, therefore, hierarchies of knowledge; and
- showing how teacher researchers come to trust their own abilities to construct knowledge, to become meaning makers, and to improve their practices.

Undertaking AR solely for personal and/or professional development has the danger, pointed out by Noffke (2002:20), of providing “an avenue for the ‘social engineering’ of particular attitudes and dispositions among teachers to the exclusion of others, primarily the focus on technical questions of ‘delivery’ to the exclusion of questions of curriculum and social justice”.

At the other end of the spectrum of action research are those like Freire (1970), Borda (1998), and Kemmis (1993:3) who aim, “to make strong and explicit connections between action research and social movement…calling it emancipatory or critical action research [which] sees the connection between social research and social life as intrinsic to research”. Kemmis continues to describe these kinds of action research as being “relentless” in their attempts to improvement of conditions and to create “a form of collaborative learning by doing”.

The spectrum within that which is called Action Research is broad – from improvement of practice within a narrow, even personal scope to transformation of a whole system. Personally, then I find that neither one nor the other end of the spectrum fits; if I undertake to only improve the capacities of the trainers in my system or the metacognitive sensibilities of all of us in the system, then I run the risk of engineering gains pertinent to a narrow learning context while inhibiting aspects of curricular import and the improvement of social justice which may have greater or at least broader significance. To posit my research in terms of Kemmis’ critical or emancipatory action research would also not be an accurate fit even though in the pursuance of facilitating learning to all there exists within my teams a rather relentless “trying to understand and improve the way things are in relation to how they could be better and at creating a form of collaborative learning by doing”. The overall intention of my research is more directed at the learner-participants than at “the system”.

Gumbo (2003:3) says “PAR [participatory action research] is essentially about ‘full’ rather than ‘pseudo’ or partial participation; it is an empowering participation”. In these senses, it is quite accurate to call my research Participatory Action Research (PAR) to clarify the distance it has from in-class practice and to
accentuate the participation which ascribes to be full. Within outcomes embraced by PAR is also the potential improvement described by Reason (2003:6) "the formation of communicative space...[this] may well be that the most important thing we can try to do in certain situations is to open, develop, maintain, encourage new and better forms of communication and dialogue."

My project does intend to create communicative space for wide participation. It also intends to improve the learning environment and the facilitation of the learning within that environment and to empower those within the social/educational system. Action research typically targets change of those in the project without targeting change of the system. Therefore, my research qualifies on several points to be accurately called “Participatory Action Research”.

3.1.3 Action Research as Cyclical Process

While there are varying spheres of application and the intended outcomes within the practice of action research, the cycles of action and reflection are always part of the description. Kember (2000:25) explains that improvement is gained in the cyclical process “each incorporating lessons from previous cycles”. Reason (2003:12) identifies the purpose of these cycles “to check our claims against what actually happens, to ask questions such as, ‘Does it work?’, ‘Do we have evidence to support our claims?’”. McLean (1995:66) points out another aspect of these cycles: "when one cycle of action research is completed another begins, so it does not have a specific beginning and a specific end……new research questions are considered as old ones are resolved". The reference to overlap and unintended outcomes of action research may refer to the dynamic nature of the process. Ziegler (2002:4) enthusiastically uses and teaches action research yet she warns that it is "unpredictable and untidy". McNiff, Lomax and Whitehead (1996:51) also speak of the “overlap, retracing steps, reviewing, redirection and refocusing…anything but sequential” in the action research process and emphasize the need for the researcher to be “very methodical and on task”.

The cyclical nature certainly counters the linear nature of positivistic research. However, just because it is not tidy or linear does not mean that action research is not valid, effective or reliable. The quality of action research is measured by standards which are discussed at the end of this chapter.

3.1.4 Action Research as Systematic Enquiry

Enquiry (UK) or inquiry (USA), depending on geographic context, both indicate the action that questions, examines and probes, seeking truth and accuracy. The motivation for the enquiry is not specified. The quality of the enquiry is specified; the enquiry is systematic, i.e. it is planned, purposed, and deliberate.

Besides enquiry and systematic Kember (2000:148) are pursued; pursuit is the continuing, on-going and deliberate movement of the whole process. McLean (1995:ix) phrase this pursuit as “a long-term commitment to action research...we begin using the process, [we] stop searching for ‘the’ answer and begin examining our current and future practices in a systematic way.”
There are four loops in the spiralling figure below which represents my PAR project. Each loop includes planning – action – reflection – cycles of research by the various PAR teams in Mozambique. Figure 3.1 below illustrates this.

In my research the spiral is upward bound, holistic learning strategies functioning within a holistic educational system focused ever “upward” on improving learning by means of strategies that are ever more appropriate and relevant to the learners in a holistic system that is ever more coherent and consistent at all levels. The spiral in Figure 3.1 indicates the intent for my PAR project to be pursued over time.

![Spiralling figure](image)

**Figure 3.1 Cycles of Research of The Efficacy of Holistic Learning Strategies in the Development of Church Leaders in Mozambique: an Action Research Approach**

The systematic enquiry took the form of literature reviews, e-mailed and face-to-face Interviews, critical discourse (which I have identified as round table discussions and which implies critical listening), textual analysis, hybrid surveys, video and still photos, and site visits. The plan for carrying out this Participatory Action Research (PAR) was phased in relation to collection, application, assessment and reformation, as illustrated also by the spiral in Figure 3.1. The personnel of the PAR teams varied from team to team, and I led each of them:

**Phase One A: 05/2000 – 8/2000 (Key Activity – Reflective Planning)**
- Formation of PAR 1
- Preliminary data collection and analysis
- Refinements in TEE model and Nazarene extension model

**Phase One B: 9/2000 – 12/2000 (Key Activity – Reflective Learning)**
- Formation of PAR 2 as first learners
- Using all holistic learning strategies with PAR 2
- Deployment of PAR 2 to the field
- Re-assessment by PAR 1
- Taking holistic learning strategies to the field
- Taking monitor training to the field, to XaiXai

**Phase Two: 1/2001 – 05/2001 (Key Activity – Reflective Writing)**
- Formation of PAR 3 in Maputo for continuing data collection and assessment
- PAR 3 advisers: grant-writing
- PAR 2 begin data collection in remote centres
Phase Three A: 5/2001 – 06/2002 (Key Activity – Responsive Praxis)
- 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

Phase Three B: 07/2002—12/2002 (Key Activity – Reflective Listening)
- 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 Four: 01/2003 – Present (Reflective & Responsive Empowerment)
- 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 of findings

- Margaret Scott, research coordinator
- Ken Walker, Paulo Sueia, Simeão Mandlate
- Advisors: Jon Scott, Filimão Chambo

- M Scott, research coordinator
- 12 Selected Mozambican diploma-level graduates, Albino Banda, Glória Macie, Alberto Caetano, Orlando Jofesse, David Paiva, José Vitorino, Questa Zeca, Catarina Tovele, Rute Matombe, Laura Neves
- Advisors: J Scott, K Walker, P Sueia, S Mandlate

PAR TEAM 3: 01/2001 – 5/2001
- M Scott, research coordinator
- Volunteer Mozambican diploma-level graduates
- Advisors: K Walker, P Sueia, Eugénio Duarte, J Scott

- M Scott, research coordinator
- F Chambo, Bonifacio Mirashi, and First 7 Lead Facilitators: A Banda, G Macie, Elaine Perkins, Phil Troutman, Manuel Vale Afonso, João Manonga, L Mahalame, Jr., J Scott
- Advisors: K Walker, P Sueia, Dave Restrick

- M Scott, research coordinator
- Advisors: K Walker, B Mirashi, P Sueia, D Restrick

In consideration of the question of qualitative vs. quantitative research techniques, action research may use either or both. Vulliamy (in Vulliamy, Lewin & Stephens 1990:17) observes:

Qualitative research techniques are especially suited to the early stages of the implementation of an innovation, whilst more quantitative measures of
outcomes may be required to assess the impact of an innovation, once it has been effectively implemented.

My research was carried out over several years of repeating cycles in the midst of the implementation of more than one innovation. From the outset the plan was to utilize mixed methods. Qualitative research tools were used during the first phases. In the last phase a hybrid survey which would yield qualitative description results as well as some quantitative data to provide a more rigorous base of empirical data for the final analyses.

3.1.5 Action Research as a Reflective Process

Knowing how to be reflective is not an automatic skill for educators, but it can be learned. McLean (1995:3) points out that in action research we evaluate “the consequences of educational decisions and adjust practice to maximize effectiveness”. But, practitioners who facilitate learning reflect on many aspects other than educational decisions. Jensen (1998:86) advises practitioners on how to link action research to brain-compatible learning in learning environment by reflecting on questions like the following:

- Are your teaching approaches flexible, individualized based on multiple learning styles, novel, and interesting?
- Do you ask students to work in teams?
- Are your assignments fun, realistic, complex and rich?
- Do you ensure that students receive lots of feedback on a daily basis?”

On-line comment (http://www.scu.edu.au/schools/gcm/ar/arp/aandr.html) about the rigor that comes from critical reflection through repeating cycles of reflection in action research says [italics mine]: “critical reflection in each cycle provides many chances to correct errors…where the critical reflection is characterized by a vigorous search for disconfirming evidence”. Reflection during and after data collection of content (or discourse or observations) includes deliberate focus on content and context via actions like McMorland (2003) identifies in an acronym which reads REFLECT:

Remember,
Enquire,
Feel,
Listen,
Engage,
Capture,
Trust and Translate into action

There is a time in the research process when hard or rigorous rightly describes. These actions cited above in the acronym by McMorland may appear to be soft by comparison, however, action research, particularly participatory action research, is embedded in a multi-levelled social context. Encouraging participants all the
levels to remain open with me and other PAR team members in the reflective process, requires a relationship in which trusting engagement may take place such that soft is probably the necessary perception to encourage their active and open participation.

Critical analysis may be carried out by individuals in the research process. Then vigorous search for disconfirming evidence is at the heart of the activity. Starting from the eight verbs in the McMorland acronym, I assign to each one corollary data analysis techniques (Smit 2004) which I incorporate into the data analysis of my PAR project in Mozambique.

Remember: applying memory while always seeking to identify similarities and differences while executing textual analysis of notes, memos, transcripts, and visual analysis of photos and videos

Enquire: critical discourse with participants at all levels; constant comparisons to identify patterns, major themes and to ensure open relationships

Feel: continuous reflection on impressions and relationships over time

Listen: attention and annotation on pace, stresses, volume, non-verbal clues as well as content analysis; what do the stories really mean?

Engage: critical analysis: Who talks? Who doesn’t? Why and why not? What is the non-verbal statement involved in the answers to these questions? Who is being allowed to be a participant? Give “voice” and direct access to all via response cards which is called “Delphi technique”.

Capture: analyze essence of unplanned data from informal personal encounters and on-the-spot data capture, hand counting, spontaneous feedback from group discourse, etc.

Trust: analyze progression in openness / closedness; identify breakdowns and consider solutions for next phase.

Translate into action: measure which participants carry through on actions promised, including reports.

These eight headings introduce many details about the actions which are embedded in the process of enquiry and analysis towards answering the research questions. A part of the rigor is resultant of the consistency of such reflective practices. Engaging, capturing, listening in an ambient of trust where feelings are permitted to be expressed, repeating these practices again and again first in one setting of the learning system, then another, until, like a crystal in formation, layer after layer, the findings begin to harden; the findings “crystalise”.

Unniivveerrssiittyy  ooff  PPrreettoorriiaa  eettdd  ––  SSccoottt,,  MM  MM    ((22000066))
3.1.6 Action Research as Participative

As Kember states, action research may be participative in general, however, there is definitely variance from project to project in the degree of participation or the breadth of participation. In contrast to positivistic research, AR is open and non-exclusive as the researcher shares the process with others. In relation to teachers enquirers as researchers they invite other practitioners to comment as critical friends on the problems or solutions; that is not what I am doing. In reference to action research which adds participatory to its title, Gumbo (2003:9) says, "PAR is also not a selfish exercise to let only the professional researcher learn from the research, or largely other researchers...It is rather a co-learning exercise in which the participants, the practitioners also gain and learn from the research". All of these statements relate to the openness found in the acronym of Zuber-Skerritt and Kallith cited previously. Openness includes transparency in process, exposure of problems and failures and revelation of successes.

Diez in Borda (1998:20) identifies uncommon results of this participation in action research by using uncommon terms – a bond of knowledge, a meeting-point, a guarantee and a talisman:

Action Research is also here as a bond of knowledge between people born on opposite shores, a meeting-point for us to work together, a guarantee of civic participation, a talisman against the curse of indifference and indolence.

Maybe because of my years of working alongside different groups of people born on the opposite shore from me, I identify with and buy into the rhetoric Diez uses here. I can "see" this happening in Mozambique: I want my PAR project to result in a bond of knowledge, a meeting-point, a guarantee and a talisman.

The level of participation in participatory action research espouses to be, in some way, greater than “just action research” hence the addition of the qualifier. The phraseology “shared success” (Zuber-Skerritt & Kallith 2003) leads right back to this participation and also leads to some ethical questions which are discussed below in Section 3.2.

3.1.7 Action Research as Determined by Practitioners

In relation to Holistic Learning Strategies among Nazarene Adults in Mozambique, those in the first PAR team are all educators, trainers of pastors, i.e. "practitioners" within a specific category. The vision for the large project was born and structured within a specific category. The vision for the large project was born and structured in the minds of some of them, then shared and described it until others, including me, caught the vision, along with their enthusiasm, and their belief that it could be accomplished, as long as it was built together. The other stakeholders of the research include church administrators, church members and the learners themselves who are not practitioners. In this aspect, my research was determined by some of the practitioners, but not all of the practitioners of the system. Some do not own it as framers but all involved can own it as a result of their input and can authentically own the results.
3.2 Practical and Ethical Considerations

Several limitations and ethical questions are inherent in Participatory Action Research and are not posed in the list of seven aspects from Kember discussed above but they are discussed in this section. Other practical and ethical considerations are particular to this, my PAR project.

3.2.1 Language

Language is a consideration in this project. The languages used in my research are English and Portuguese for the literature reviews and for my interface with the high- and intermediate-level practitioners. Other languages are used in the local learning centres for interface between trainers-of-trainers and trainers and between trainers and adult learners.

Stephens asks himself two questions (1990:81): “How biased would be those asked by me to reflect upon their experiences? Would my sole use of English ‘skew’ the picture – that is present only the views of elite extroverts?” (What would be the difference between “elite extroverts” and “elite introverts”?) I must continually ask myself the first question, and critically access the data from this perspective in order to answer the question. Then I must ask “Will my use of Portuguese ‘skew’ the picture – that is present only the views of elite extroverts?” to which I may answer, the participants do not present views only to questions that I ask; they also present views to compatriots who live with them. This does not prevent “skew” but acknowledges that the participatory design aims to empower the voice of those infrequently heard.

3.2.2 Other Considerations

Stephens in Vulliamy, Lewin and Stephens (1990:79) points to a bias which must also be acknowledged from the outset of my research, namely the role of the expatriate in research in Africa:

> It would be a mistake, I believe, to think that it is only the expatriate who is the outsider in the research process. Or that he or she is necessarily at a disadvantage...It is probably true to say that, whereas any qualitative research involving interviews, participant observation and other forms of intervention in the daily lives of the community (whether one is a member of it or not) raises problems of an ethical nature, there are specific problems faced by individual researchers coming from one very different community to research another.

Whether bias is introduced by the fact that I am an expatriate or that others of my PAR team members are also “outsiders” to some of the participants, such bias does need to be recognized as a limitation of my research.

Noffke (2002:20) frames other ethical questions in terms of knowledge production as an outcome of AR:
In whose interests is knowledge produced?  
Who “owns” and benefits from knowledge?  
To what extent can we begin to talk about collectivities instead of assuming proprietary notions of knowledge production?

I am challenged by these questions and want to answer them fairly since wide participation is the fibre of the project, wide inclusion should extend to ownership of the benefits from the knowledge production, starting off with a translation of it back into Portuguese so that they can read the collective results.

Reason (2003:17) says:

Sometimes in action research what is most important is how we can help articulate voices that have been silenced. How do we draw people together in conversation when they were not before? How can we create space for people to articulate their world in the face of power structures which silence them?

I cannot change the fact that I am an expatriate doing research in Africa but I can draw participants together in conversation when they were not before. I can listen carefully to the voices which have been silenced in the past and report them accurately toward authentic articulation. I can actually empower them to participate, repeatedly, cyclically. I can include the view of many participants to publications which they can read. And, from a position of privilege, I can keep opening platforms for their continued expression within the system. With them I can build an inclusive learning system linking them to educational opportunities, therefore, give them benefit from the knowledge produced.

3.3 Arboric Research Framework

3.3.1 Introduction.

The PAR project in Mozambique is taking place within a human systems context which is, therefore dynamic. In seeking to identify the proper research design for the project, I considered framing it as ethnographic research; however, the study is not conducted in precisely the natural setting of the participants. The setting is close to their natural living settings and in education centres, which are located in and affected by their local communities but it is not very natural for many of these learners to be in the role of learners again, and the PAR team members, for the most part, were not embedded in the wide context of the learning centres, which constitute the sites of the use of holistic learning strategies. I considered evaluation research but the curriculum was not yet fully implemented so the field was not yet ready for evaluation; it would have been very difficult if not impossible to construct base lines for evaluation.

One of the realities of my research context is its fluidity. Middlewood, Coleman and Lumby (1999:19) compare the fluidity of research in a human system to a snapshot:
Attempting to assess the impact of research, a pragmatic differentiation can be made of how far conceptual thinking was influenced in the individual researcher and in others, and how far practice changed, but the perspective is a snapshot at one point in time which assesses impact so far, and which is consequently partial and imperfect....

The analogy of a snapshot certainly has applicability to research on human systems; perhaps one frame of a film or movie would be a more complete analogy which would accommodate the dynamic nature of the subject. This fluidity is inherent in the cyclical, repetitive nature of PAR. A film or movie is an encapsulation of reality with accompanying sight, sound and movement, but the film itself is flat, celluloid, unchanging, and non-living. My research is not flat but multi-dimensional, not celluloid but organic, ever-changing towards a vision and is definitely living research. Therefore, I am opting to frame a design called “Arboric Research” because it promises accuracy for the focus on the learning taking place within the ever-changing structures of the human system of my study.

Arboric Research takes its name from and may be illustrated analogously and graphically by certain living organisms, particularly trees and grapevines. Both of these plants illustrate the dynamic nature of research on human systems but do so within the formation of a living structure which also captures the non-linearity that is also inherent in research human systems. Human systems over time bifurcate, branch out and need pruning in order not over-extend the life capacity of the system. Research on human systems can appear “messy” or “untidy” because of this tendency to bifurcate. In representing this aspect grapevines would have the advantage over trees since grapevines grow those twisty little spirals and their branches intertwine with each other which might better suit Participatory Action Research. But a careful look at the bushy, overlapping branches of several sizes of a mature tree for the “researcher” who is sitting in the “v” of the first bifurcation also sees non-linearity and certain untidiness in the growth pattern, so I chose a tree for illustration.

We may appreciate any individual part of a tree (or grapevine), i.e. the leaves, the shade or the fruit. However, while focusing on one part, we must always keep in mind realities which do not lie within the momentary focus of the one part of the plant but which are affecting the part under observation. No part of the tree would be healthy if the roots were not actively taking in moisture and the internal systems were not all functioning to get nutrients and water to all parts. The variables of temperature and air critically affect the health of the part being studied. These factors must be controlled to avoid the death of the plant. Moisture at the proper level must be present to insure on-going life; hence, the whole picture is quite different than any one or even the sum of its parts.

Similar in effect, Kemmis (1993:4) comments about the relationships between the “micro” and the “macro” in social and educational life:

If the ‘macro’ is conceptualized as a different order from the micro -- as unanalyzable [sic] in the same terms -- then it will be impossible adequately to conceptualize the relations between local and global change, between
research for the improvement of local practice and research for the development of universalizing theory.

The summary of Arboric Research in general as it might be applied to any human system was presented in Chapter 1. In Table 3.1 below, the rows with characteristics of Arboric Research are split apart in order to write interpretive comments fitting my particular research project into the dynamic, organic, living framework of the human system which is the educational system of the Church of the Nazarene in Mozambique. The Participatory Action Research is framed by the Arboric Research design.

* ARBORIC RESEARCH DESIGN FOR
“A STUDY IN HOLISTIC LEARNING STRATEGIES FOR DEVELOPING LEADERS IN THE CHURCH OF THE NAZARENE IN MOZAMBIQUE

<table>
<thead>
<tr>
<th>Design classification</th>
<th>Empirical</th>
<th>Hybrid data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantitative &amp; Qualitative</td>
<td>Medium control</td>
</tr>
</tbody>
</table>

This study called “A Study in Holistic Learning Strategies for Developing Leaders in the Church of the Nazarene in Mozambique” is empirical, both quantitative and qualitative, uses hybrid data and medium control.

Key research questions

- 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 the environment and the relation of it to the whole and the whole to it?

The “whole” of my study is the Nazarene system of education in Mozambique which has two main branches: the residential Bible School where the trainers (monitors) are trained and the extension education network called “Instituto Bíblico Nazareno na África Lusófona” (IBNAL).

The “parts” of my study are the people, the leaders and learners and the PAR team members, including me, all within the Nazarene system of education in Mozambique.

The “germ” of my study is the holistic learning occurring in the minds of the learners.

The “elements of the environment” are the varying contexts in which the leaders and learners of the Nazarene system of education in Mozambique live, work, minister and learn, not the least being the Church of the Nazarene.

More specialized design

Research questions represent varying domains of functionality such as “the four C’s” of the learning domain: Content, Capacity, Character and Context.

The domains of functionality represented in the research questions are:

- “Do holistic learning strategies facilitate learning?” The domain of functionality of this question is individual, within the brain of each one.
• “To what extent do holistic learning strategies facilitate learning? The domain of functionality of this question is individual and social in that some limitations to the “extent” are within the individual other limitations originate in the social contexts in which the individual is embedded.

• “in the hands of minimally trained monitors” The domain is academic or educational.

• “How do holistic learning strategies facilitate learning? The domain is scientific, belonging to shared, public scholarship.

**Typical applications**

Multi-level assessment over time, in situ, of the satisfaction of the partners in the system community with the empowerment and functionality of the system which is described by community members; assessment of process management is pertinent.

This research study utilizes both applications given above.

**Meta-theory**

Critical observation of the whole instead of the parts plus integrative analysis are reliable because

A. every part impacts the whole;
B. the whole impacts the parts;
C. parts impact each other;
D. isolation or dissection of the parts means
   a. alteration of the natural state at best
   b. crippling or death at worst.

This research study ascribes to this meta-theory.

**Conceptualization / mode of reasoning**

What are the parts of a system which contribute to authentic functioning? Are there any blockages? Analogous to any complex plant or animal, the living, dynamic whole consists of the following:

A. cycle of life; life from life; “chicken or egg?” — either may be chosen to begin dialogic observation
B. fertilization; union, genetic coding;
C. embryonic life: vulnerable, potential, immature in function and structure, different from its adult form;
D. growth: dimensions;
E. development: diversification of structure and achievement of function of all parts;
F. renewal or rigidity-to-death
In Chapter 5, this mode of questioning and reasoning is reported in detail.

**Selection of cases / sampling**

Sampling intends to be extensive to all levels and to many parts of the whole; full participation encouraged.

The selection of cases with each of the research tools utilized was open to every part of the system and each response was voluntary by self-selected participants.

**Mode of observation/ sources of data**

All available data collection methods, including structured and semi-structured methods.

This research project utilized several data collection methods: round table discussions, face-to-face and e-mailed interviews, textual analysis, literature reviews, site inspections, hybrid surveys, and photographic and video data capture.

**Analysis**

Integrative, synthetic descriptions; comparative analysis, including relational, chronological and dialogical; descriptive statistical graphics including tables and examples.

The analysis tools described above are the tools utilized in this PAR study.

**Strengths**

High usefulness to the specific “whole” and all of its parts; affirmation of value, ownership and empowerment of the parts.

The knowledge jointly produced has already given evidence to its usefulness to the whole Nazarene educational system in Mozambique and in other countries, and empowerment of the parts became evident in the role-taking of many learners as leaders in Phase Four of the project.

**Limitations**

Possibility to access only approximate real “whole”; medium generalisability.

I acknowledge these limitations.

**Main sources of error**

Participant bias; sampling errors; selectivity effects.

I acknowledge these main sources of error.

---

Table 3.1. Arbic Research Framework for A Study in Holistic Learning Strategies for Developing Leaders in the Church of the Nazarene in Mozambique.

There are four phases to my PAR project. Illustrated by the growth and maturation of a tree, the four phases correspond to the following images in Figure 3:2.

---

1 The format and section headings of this table are based on examples given in Mouton (2002:147).
ARBORIC RESEARCH FRAMEWORK OF PARTICIPATORY ACTION RESEARCH PROJECT:
Holistic Learning Strategies for Developing Nazarene Leaders in Mozambique

Figure 3.2 Trees in Development as Illustration of Arboric Research
Figure 3.2 shows trees of varying sizes and in varying stages of development. The learner population of this PAR study grew in size, especially during the period 2000-2001. Human systems also evolve and develop as trees do. Examining holistic learning strategies in 2000 and 2001 was limited by several factors – the small size of the population, the superficial understanding of holistic learning strategies on the part of PAR team members, the lack of infrastructure to do research systematically and the short experience of anyone in the system with the use of holistic learning strategies. The “tree” gained in maturity; by 2003, IBNAL, had gained potential to be recognized for what it was and still is, a holistic learning system in which pastors are trained to facilitate learning via holistic learning strategies.

Correlating Kemmis’ terms to my PAR research within an arboric frame, I observe brain activity or learning in each individual as the “micro unit” and the holistic learning system (IBNAL) as the “macro unit”, and the researchers consistently engage in critical and participatory discourse throughout, I think Kemmis might find resonance in Mozambique.

### 3.3.2 Application of the Framework to the Research in Mozambique

The “Soil and Roots” provide an analogy that is easy to follow: learners are found in a specific context from which they continue to draw, receiving nutrients and shape. The learners in this research have several different contexts discussed in Section 2.5.2. Each context is important, feeds the learners in different ways and influences their learning and the achievement of the various project outcomes, i.e. efficacy of learning strategies, and authentic voice and empowerment.

The “Stem and Leaves” form the conduit system of plants. They include infrastructures which are already solid and others still developing in which more movement takes place than in those already solid. Likewise, the infrastructures within human systems also vary in development, solidness, rigidity and “movement”. The areas of human systems in which movement can take place are those in which there is enough pliability or softness to permit change.

The stem of a tree starts out pliable and soft, vulnerable to injury and infestation, then the outside of the stem hardens as the protective outer layer of the bark covers over the living inner structures where growth and development keep on taking place as long as the tree lives. Likewise, in the holistic learning environment of the adult learners in Mozambique, there are structures which are fixed. In Section 2.5.2 I identified the aspects of the context of the learners (and of the other participants) which are more rigid than the areas in which growth and development take place. I believe that most human systems are like that, that there are structures which harden but there are tender areas where growth and development may be encouraged to take place.

The leaves are part of the conduit system. In a tree they are the structures which absorb needed nutrients from the outside and also give off products. Likewise, the participants in this PAR research are open to the outside and take and give.

The “Sap” of any plant is the fluid essence that penetrates and gives growth; this is the three-dimensional learning which actually is taking place in the lives of the
learners. Holistic learning within holism was explored in Chapter 2 as the theoretical framework of the research. Three-dimensional learning is a specific kind of holistic learning that the project undertakes to facilitate through the use of holistic learning strategies which are relevant and pertinent to the whole population of learners. The essence of the findings on learning is reported in Chapter 5.

“Cell-to-cell Processes” in any plant, including trees, constitute the life of the organism. As soon as there is no transfer, there is no life. In deciduous trees, leaves die and fall when a layer in the leaf stem cuts off transfer to the leaves. Similarly, the multi-directional interactivity between participants in the PAR project is the life of the research project: learners, facilitators and action researchers. The empirical study itself, which closely observes the interactivity between the “cells”, i.e. the participants, is explored in Chapter 4.

“Flowers and Fruit” are the products of life processes of plants. Flowers develop into fruits. Results are the products of the life processes of a human structure. They are “evidences” of the processes which may be seen and described. The project results constitute Chapter 5. The “Seed” is the potential for the next generation. In the seed is all the life potential for furtherance. At the end of Chapter 5 recommendations for further study are described.

3.4 Summary of Research Instruments and the Plan

Participatory Action Research is the over-arching research design. The involvement of many other participants throughout the four phases of the research has been consistent. This type of research influences the style of reporting the data collected as well as the cyclical, reflective, dialogic aspects of the process itself of data collection and analysis which is conducted between the participants. It can appear untidy, especially to a non-participant, because of its fluid, spiral and non-linear qualities. The differences between PAR and positivistic types of research have similarity to lateral thinking verses vertical thinking (De Bono 1973), the latter which is linear, proceeding toward a quantifiable objective, known from the outset, the former which proceeds non-linearly, the pathway has jumps and gaps, toward a qualifiable objective, recognized by the individual(s) when it is encountered.

The tools of data collection and analysis of my Participatory Action Research were diverse and are reported in detail in Chapter 4; they included critical discourse with comparative analysis ever in search of patterns and repetitions which crystallize findings and disconfirming evidence which precipitates reflection into plausible explanations. As introduced in Table 1.4, the data collection tools and analysis generate findings relative to the research questions. Table 3.2 below organizes the same information, i.e. tools and research questions, on axes opposite those in Table 1.4 in order to show the status of the research reporting at the end of Chapter 3.
Table 3.2 Relationships between the Tools of Data Collection and the Research Questions of A Study in Holistic Learning Strategies for Developing Leaders in the Church of the Nazarene in Mozambique

Discussion: At the end of the Literature Review reported in Chapter 2, theoretical answers to Questions numbered 1) and 3) in Table 3.2 are reported. Findings from six other tools, those utilized in the empirical study, would contribute to answering the second question, i.e., “to what extent”. The answer to the first question, “Do holistic learning strategies facilitate adult learning?” is reported at the end of Chapter 4 in the findings from six tools utilized in the empirical study. These same six tools of the empirical study might contribute to answering the second question at the end of Chapter 4, and five of the research tools in the empirical study might contribute to answering “How do holistic learning strategies facilitate adult learning?”

The ethical implications of Participatory Action Research condition the future of the knowledge produced, that it also be jointly accessible and beneficial, i.e., continue to be owned by the many participants. The quality standards of the research are upheld by the multiple layers of accountability which result from the openness inherent in the participatory process, by the conformity of the researchers to the parameters of the research type, Participatory Action Research, by verification through the use of several research instruments, by rigor in the use of multiple tools of analysis, by thorough, accurate and integrative reporting, and by responsiveness to the suggestions and orientations of my supervisor and the faculty support including the Dean of the Faculty of Education at the University of Pretoria.
The fundamental difference between action research informed by a technical interest and action research informed by a practical one is that the former is concerned primarily with answering the questions:
What must I do to get the best results and how do I do it?
The latter also asks,
What must I do in order to understand what is happening in this social context?
(Savahl 1993:46).

This research qualifies as Action Research (AR) in general and specifically as Participatory Action Research (PAR) Research.

Action Research is concerned with social practice.
Action Research is aimed towards improvement.
Action Research is a cyclical process.
Action Research is pursued by systematic enquiry.
Action Research is a reflective process.
Action Research is participative.
Action Research is determined by practitioners

Practical and ethical considerations.
Language is a consideration in this project.
Other considerations.
Description of the training of the facilitators
Description of a normal group session

The research design is Arboric. (maybe; I'm still not sure of this)
Introduction
The Soil and Roots.
The Stem and Leaves.
The Sap.
The Cell-to-cell Processes.
The Fruit.
The Seed.
Summary of research instruments and plan

**Description of PAR team member selection**

Phase 1: pilot studies; talk, talk, talk
Phase 2:
Phase 3
Holistic Learning Strategies, Mozambique

Scott, MM to PH du Toit 3/14/2006
There are four loops in the spiraling figure below which represents my PAR project. Each loop includes planning – action – reflection --- cycles of research by the various PAR teams in Mozambique. Figure 3.1 below illustrates this.

![Spiraling Figure](image)

**Figure 3.1** Cycles of Research of The Efficacy of Holistic Learning Strategies in the Development of Church Leaders in Mozambique: an Action Research Approach

Holistic Learning Strategies among Nazarene Adults in Mozambique
In my research the spiral is upward bound, holistic learning strategies functioning within a holistic educational system focused ever “upward” on improving learning by means of strategies that are ever more appropriate and relevant to the learners in a holistic system that is ever more coherent and consistent at all levels.
The spiral in Figure 3.1 indicates the intent for my PAR project to be pursued over time.
3.1.4 Action Research as systematic enquiry

*Enquiry* (UK) or *inquiry* (USA), depending on geographic context, both indicate the action that questions, examines and probes, seeking truth and accuracy. The motivation for the enquiry is not specified. The quality of the enquiry is specified; the enquiry is *systematic*, i.e. it is planned, purposed, and deliberate.

Besides *enquiry* and *systematic* Kember (2000:148) are *pursued*; pursuit is the continuing, on-going and deliberate movement of the whole process. McLean (1995:ix) phrase this pursuit as “a long-term commitment to action research...we begin using the process, [we] stop searching for ‘the’ answer and begin examining our current and future practices in a systematic way.”

The spiral in Figure 3.1 indicates the intent for my PAR project to be pursued over time. The systematic enquiry will take the forms of literature reviews, e-mailled and face-to-face Interviews, critical discourse (which I have identified as
Holistic Learning Strategies, Mozambique

Scott, MM to PH du Toit 3/14/2

List 3, Indent: First line: 18 pt, Right: 18 pt
<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>27/03/2006</td>
<td>09:16:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>27/03/2006</td>
<td>09:16:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
<tr>
<td>145</td>
<td>Unknown</td>
<td>26/04/2006</td>
<td>23:27:00</td>
</tr>
</tbody>
</table>

Font: Arial, 9 pt
<table>
<thead>
<tr>
<th>Page 154: [195] Formatted</th>
<th>Unknown</th>
<th>03/04/2006 22:59:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page 144: [196] Deleted</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Page 144: [197] Formatted</td>
<td>Unknown</td>
<td>27/04/2006 02:16:00</td>
</tr>
<tr>
<td>Font: 11 pt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 144: [198] Deleted</td>
<td>Unknown</td>
<td>26/04/2006 23:54:00</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Holistic Learning Strategies, Mozambique - - - - Scott, MM to PH du Toit 3/14/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 144: [199] Formatted</td>
<td>Unknown</td>
<td>28/03/2006 22:25:00</td>
</tr>
<tr>
<td>List 3, Indent: First line: 18 pt, Right: 18 pt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Font: 12 pt, English (South Africa)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusions and Further Recommendations

A reflective discussion of
Methodological: break the 2nd good method; tell why you didn’t use it

Substantive

Scientific: which is why I earn a PhD

Recommendations for

Policy and practice

For further research: write paragraph abstracts; a quality study to determine…

Further development work (if applicable)

E.P.I.C. Experiential, Participatory, Image-Based, Community

E.P.I.C. Experiential, Participatory, Integrative, Cooperative

Strategies of learning which are holistic enhance character development regardless of the age of the learner, regardless of the learning preferences of the learner as long as the brain is healthy.

Questionnaires support or tear down the theory, so I probably need to do a wide-spread questionnaire to as many students and church leaders as possible.

We have a theme/goal in IBNAL “to be like Christ” and a theme hymn, “I want to Be Like Jesus. Do you want to be like Christ? Do you feel you are more like Christ this year than last year?

What experience this year (2004) brought you closer to Christ?

See Imel’s Transformational learning article

Which brings me full cycle back to Sylvia Scribner’s milkmen in their New York dairy, sorting out their deliveries of milk, cream, yogurt, and butter. They were engaged collectively (and expertly) in an ‘oeuvre’ in the sense in which that term was discussed…the oeuvre in question—delivering dairy products in a huge city, the nearest supplier of which is at least fifty miles distant—is composed of hundreds of small ‘thing,’ small rebuses, ranging from the highly technical (providing regular tuberculosis testing for cows, for example) to the highly traditional (providing the products in canonical containers in traditional colors and flavors, and at a traditional time of day) (Bruner, 1996:158).

We seem to institutionalize knowledge in folklore, in myth, in historical records, eventually in libraries and constitutions, and now on hard disks. And in storing it we shape it to fit the myriad requirements of communal living, squeezing it into the shapes required for dictionaries, legal codes, pharmacopoeia, holy books, and the rest. In some deeply puzzling way, this stored knowledge, replete not only with information but with prescriptions for how to think about it, comes to shape mind (Bruner, 1996: 165).

So, in the end, while mind creates culture, culture also creates mind (Bruner, 1996: 166).

Application: 2nd certificate group How to be a good group, letter or story to leaders who may be new converts.

Development of wholeness within personhood

How? Or why does learning take place
Learner will it – will to be is greater than the will to know

I am ____________ African model vs. American model

Tracking PEER TUTORING IN SECOND-CHANCE OCCASIONS

If learners in my population do not accomplish all five criteria to pass a course when the other learners in their cohort pass, then a “second-chance” can be invented for them. In such inventions, the cooperative learning group may assign a peer to tutor the weaker one. This is an academic extension of the previous learning strategy “encouraging and helping colleagues.” Gatimu, Gachegoh, et al (1997:27) surely pinpoint one of the activities of peer tutoring, “Dialogue is… found when students
study in groups. In these groups they discuss the issues raised in the study material.” Peer tutoring is a dialogic review of learning already in process. The readiness and willingness of a colleague to take time to help a peer in this way also is a display of traits like “kindness”, “unselfishness”, “loyalty” and “self-discipline.” Henerson & Morris et al (1987:13) say that attitudes have “many manifestations – productivity, attention, interaction with others, verbal responses.” They also say that attitudes When we attempt to measure an attitude such as racial prejudice, we find measurements of attitudes may be “blurred by peer group pressures, the desire to please, ambivalence, inconsistency, lack of self-awareness” so those who volunteer to help others may have some other personal agendas for doing so. Still the learning strategy has validity for certain cases; it is a useful solution for benefiting the weaker learner.


My research does not nor cannot extend to analysis at such linguistic depths as these but observations like those of Bruner which relate to the responsibility and/or obligation of the self in the various cultural/linguistic environs are fodder for future research on the part of the multi-lingual Mozambicans who are participating with me in action learning and action research. Critical analysis of agentive and patientive forms of grammar even have theological implications. There are multiple aspects of research within each one of the Mozambican people groups.

Goduka (2000:80) rallies Africans to “decolonize the academy” by reclaiming/affirming our indigenous story, cultural identity and voice” and by finding “a synthesis between the [values of ‘old’] Africa and the influences which have come with colonialism and ‘modernity.” Again, I express hope that the Mozambicans participating with me in this PAR project will respond to the challenge to reclaim/affirm the indigenous story, identity and voice and to catch the vision for the depth of understanding concerning learning and identity in their maternal cultures that they could bring to the fore by continuing to probe, research and write. My Mozambican colleagues could respond to Vilakazi in Goduka (2000:80) who challenges Africans to “become anthropologists doing fieldwork on [our] people and on ourselves, as part of a great cultural revolution aimed at reconstructing Africa” by continuing PAR projects in their original contexts.

Categorizing as a kind of pattern-making or pattern-recognizing is widely held as a descriptor for brain-functioning even though the explanations for describing how the brain detects patterns vary. Restrak (1994:70) says [italics mine], “one can hardly overestimate the importance of learning more about the categories and how they are organized within the brain. They form the underpinning to our understanding of ourselves and the world around us.” Curriculum writers frequently wordsmith outcomes which reflect, in the reality of lives of the learners, their understandings of themselves and the world around them. As more is learned about how the brain detects and recognizes patterns, educators should be able to set up learning situations in which their learners are enabled to better succeed in categorizing which, in turn, will help the learners better succeed in learning.