

https://dspace.org/

From ideal into practice : an illuminative evaluation of a learnership in the insurance and investment sector.

Sosznianin, Tatiana

2012-02-15
http://hdl.handle.net/10539/11318

Downloaded from a DSpace repository. https://dspace.org/

CHAPTER 4: RESEARCH DESIGN

In this chapter, the research design of this study is described. In the first place, the broad philosophical paradigm, which frames the research approach, is discussed. This is followed by a description of the features of illuminative evaluation, the methodology chosen for this study. Finally, the data collection methods and methods of analysis are elaborated.

4.1 Research Paradigm

Patton (2002) uses the allegorical sage *Halclom* (how come or why) in the tradition of the Sufi stories used to pass on wisdom. Through his virtual sage, Patton (1990) expresses certain laws of inquiry, the first stating that, 'qualitative inquiry cultivates the most useful of all human capacities: the capacity to learn from others' (p. 7).

According to Creswell (1994), qualitative inquiry is a systematic way of understanding social or human problem, based on building complex and holistic pictures, through words. It is able to report in detail the views of informants because it is conducted in the natural setting of events. Maxwell (1996) highlights that: 'The strengths of qualitative research derive primarily from its inductive approach, its focus on specific situations or people, and its emphasis on words rather than numbers' (p. 17). The author quotes Strauss (1987) in clarifying that inductive analysis means finding patterns, themes, issues and categories in the data.

This research follows a qualitative research paradigm using the method of illuminative evaluation to examine one event in order to illuminate contextual insights. Qualitative research relies on inductive reasoning processes to interpret and structure meanings derived from data. Inductive reasoning uses the data to generate ideas, as opposed to deductive reasoning, which uses data to confirm or negate ideas in the form of a hypothesis. Thorne's (2000) distinction between deductive analysis as explanation and inductive analysis as interpretation offers clarity. Furthermore, the inferences made from analytic interpretation of data in this research are 'retroductive' which, according to Pierce (1933), means such inferences are not necessarily be suitable for generalisation because of the contextual uniqueness of the data, but may be informative for similar events in similar circumstances.

Qualitative research is often criticised for lacking scientific rigour. The most commonly heard criticisms are that:

- Qualitative research is merely an assembly of anecdote and personal impressions, strongly subject to researcher bias.
- Qualitative research lacks reproducibility in that the research is so personal to the researcher that there is no guarantee that a different researcher would not come to radically different conclusions.
- Qualitative research is lacking in generalisability. In other words it 'tends to generate large amounts of detailed information about a small number of settings'(May and Pope, 1995, p. 95).

The assumption underlying all these criticisms is that quantitative and qualitative approaches are fundamentally different in their ability to ensure the validity and reliability of their findings. This distinction, however, according to May and Pope (1995), is more one of degree than of type.

Britten and Fisher (1993) neatly summarise the arguments for and against by pointing out that there is some truth in the saying that quantitative methods are reliable but not valid and that qualitative methods are valid but not reliable'. These authors seem to agree that the problem of the relationship of a piece of research to some presumed underlying 'truth' applies to any form of social research.

From the current debates on these issues, I believe that in the postmodern, there begins a broadening of views, a growing acceptance of different values. I agree with Dingwall (1992) that:

> One of the greatest methodological fallacies of the last half century in social research is the belief that science is a particular set of techniques; it is, rather, a state of mind, or attitude, and the organisational conditions which allow that attitude to be expressed (p. 168).

All research depends on collecting particular sorts of evidence through the lens of particular methods, each with characteristic strengths and weaknesses. May and Pope (1995) speaking about qualitative research explains that it's difficult for researchers to ensure that the questions, categories and language used in questionnaires are understood in the same way by respondents and that responses have the same meanings for all respondents. Similarly research that relies solely on observation by a single researcher,

such as this research, is limited by the perceptions and introspection of the investigator and by the possibility that the presence of the observer may, in some way that is hard to characterise, have influence what was observed.

This is the case in this illuminative evaluation. The theoretical lens filtering my approach, the strategies that I use in collecting and constructing data, my personal views on what is relevant or important data in addressing the research questions, are analytic processes that have influence on data and its interpretations.

Qualitative inquiry has a fundamental people orientation, and for this reason, observation adds depth to the information gathering possibilities of interviews and document analysis. Patton (2002) cites sociologist John Lofland's (1971) suggested four people-oriented mandates in collecting qualitative data, 'commitment to get close, to be factual, descriptive and quotive, constitutes a significant commitment to represent the participants in their own terms'. Patton further contends that to take the reader into the setting that was observed, the data must be descriptive, have depth and detail (p.28).

In the analysis process, inferences are drawn from the interview categories and observations (the learning milieu) while others are derived from an analysis of documentary sources such as relevant legislation, INSETA policies, and learnership documents (the instructional system). These two key concepts in illuminative evaluation the 'learning milieu' and the 'instructional system' are discussed in detail later in the chapter. This analysis is done through the researcher's frame of reference, which, even with the researcher's scrupulous awareness of personal bias, cannot but have some impact on the analysis.

4.1.1 A Constructivist Philosophy

As mentioned in chapter two this illuminative evaluation is framed by a constructivist philosophy which values reflections on own experience as a tool for achieving personal understanding.

The various stakeholders involved in the learnership; the learners, facilitators, mentors, and learnership managers, all have different experiences and perceptions of the programme, which are experienced as real. As a Constructivist, I endeavour to examine the implications

of the different perceptions or multiple realities without judgement of which is more right or true or real.

In relation to the way research is done within a Constructivist tradition and orientation, and although he is not writing about learnerships or apprenticeships in particular, still Patton's (2002) indications below regarding what the researcher should do are applicable in this study of a workplace learnership (p.98).

- Expect the different stakeholders involved to have different experiences and perceptions of the programme, all of which deserve attention.
- Attempt to capture these perspectives through observation and open-ended interviews.
- Examine the implications of different perceptions or multiple realities without judgement of which is more right or true or real.

For Guba and Lincoln (1989), the primary assumptions of constructivism are that:

- Truth is a matter of consensus among constructors.
- Facts have no meaning except within some value frame.
- Causes and effects do not exist except by imputation.
- Phenomena can only be understood within the context in which they are studied.
- Data from constructivist inquiry is simply another construction to be taken into account.

The thinking of these authorities on a constructivist approach to research within a qualitative paradigm resonates well with a belief in the diversity of knowledge which characterise postmodernist thinking and its incredulity towards the concept of the existence of an absolute truth. Both paradigms seem in harmony with an enquiry into the social and contextual nature of learning in learnerships.

4.2 Research Method

4.2.1 Illuminative Evaluation

> The idea of acquiring an inside' understanding – the actors' definitions of the situation – is a powerful central concept for understanding the purpose of qualitative inquiry.
>
> (Schwandt, 2002, p. 102)

Illuminative evaluation, being a qualitative method of research, was the ideal choice for this study because it works to expand this powerful central concept of qualitative inquiry: the inside view based on the actors' own definitions of the lived experience.

Referring back to the metaphor used by Parlett and Hamilton (1976), likening the event of being illuminated as a stage where all actors play a role that potentially impact the learning, these authors, in their own words, express in the best possible way why an 'illuminative evaluation' is an appropriate method of exploring a learnership in the insurance and investment sector.

> When an innovation ceases to be an abstract concept or plan, and becomes part of the teaching and learning reality…it assumes a different form altogether. The theatre provides an analogy: to know whether a play 'works', one has to look not only at the manuscript but also at the performance; that is, at the interpretation of the play by the director and actors. It is this that is registered by the audience and apprised by the critics. Similarly, it is not an instructional system as such, but its translation and enactment by teachers and students, that is of concern to the evaluator and other interested parties. There is no play that is 'director-proof'. Equally, there is no innovation that is 'teacher-proof' or 'student-proof' (p.100).

4.2.2 A Review of Selected Illuminative Evaluation Studies in Education

In illuminative evaluation, 'The task is to provide a comprehensive understanding of the complex reality (or realities) surrounding the project; in short to "illuminate"… through "description and interpretation rather than measurement and prediction"', (Parlett & Hamilton, 1976, pp. 88, 99). The focus is on identifying significant features and comprehending relationships between beliefs and practices.

Only illuminative evaluations within the educational context have been reviewed within the scope of this study. Two early evaluations, one by Hamilton and the other by Parlett themselves, are explored. This is followed by a more recent illuminative evaluation.

Hamilton (1975) was involved in an evaluation on the implementation of a new integrated science curriculum in two Scottish schools. With Bernstein's (1971) distinction between 'collection' and 'integrated' curricula as a conceptual framework for the study, he observed the science classes at both schools over four months. He interviewed teachers and administered questionnaires to pupils. In the writing of his evaluation, Hamilton gives a

detailed summary of relevant aspects of the milieu and its changes over time. He then fine-tunes the focus to specific features such as the timetable and testing, which his research identified as having a strong effect on implementation of the curriculum. One of the most salient issues discussed is that instituting integrated curricula into a collective 'instructional system' created 'untenable' conflicts for teachers, and that an initial seemingly unimportant mismatch between the 'instructional system' and the 'learning milieu' can have greater impact over time. It was also highlighted that the 'instructional system' can undergo transformation in the 'learning milieu', which, in the end, 'resulted in its serving ends directly opposed to those intended' (Hamilton, 1975, p. 205).

Parlett (1977, p. 178) in his evaluation study focusing on the learning milieu, recommended three ways of studying the learning milieu:

- Observation and analysis of the social processes common in the milieu;
- Interviewing that involves engaging in informal dialogue;
- Collecting examples of 'ideas in currency' – the pervasive beliefs about the institution / department's aims, descriptions of character, and definition of problems.

More recently, Netshandama and Basson (2004) conducted an illuminative evaluation of the impact of training workshops for educators and principals at Penreach College in Nelspruit, South Africa. The materials used for training were studied to establish content and principles (instructional system) being taught. Naturalistic observations of educators and principals at schools and in classrooms followed to establish the extent of application in practice (learning milieu) of the principles learned at the workshops. Questionnaires and interviews were conducted with educators and principals, providing opportunities for data triangulation. The study found many matches in application of what was taught. Mismatches were used for making recommendations (p. 26, 40). The review of the literature on illuminative evaluation research mainly highlights:

- The importance of first becoming familiar with the setting, and gaining the trust of participants.
- That pre-existing theoretical frameworks or questions can be useful in generating anticipated issues or to focus the research to some extent.
- That purposive and or convenience sampling is commonly used.
- That most illuminative evaluation studies use multiple sources of data, sometimes including data, which is informally gathered. A common reason for this the need for progressive focusing.

4.2.3 Nature and Methodology of Illuminative Evaluation

Up until the 1960s, evaluative research studies were commonly pursued from a modernist perspective. This is an objectives paradigm, from the point of view that experienced phenomena are real and exist independently from individual perceptions, and that knowledge can only be considered valid when empirically verified. Evaluators within this paradigm worked with scientific experimental designs, used deductive methods and quantitative data (Worthen & Sanders, 1987, p. 46; Patton, 1997, p. 273). This sixties decade saw the beginning of a shift to a postmodern perspective.

Post modernism rejects this fixed notion of reality, favouring a subjectivist perspective that sees realities as being constructed and behaviour and data as socially situated and therefore context dependent (Cohen et al. 2000, p. 137). Here evaluators acknowledge the 'validity of subjective experience, work with flexible naturalistic designs involving studies of specific contextualised phenomena, and use inductive methods and qualitative data' (Patton 1997, p. 273). The publication in 1972 of the paper *Evaluation as illumination: a new approach to the study of innovatory programmes* by Parlett and Hamilton marked the first comprehensive description of a naturalistic and qualitative agenda for evaluation (Stronach 1977, p. 23). However, the illuminative approach to evaluation had antecedents in Scriven, who worked with the notion of goal-free evaluation (Scriven, 1972, p. 131) and Stake, who introduced the idea of responsive evaluation (Stake, 1977, p. 163). At the same time, Stenhouse (1970, p. 119) rejected the objective model of research into curriculum supporting an 'understanding' approach, and Eisner (1972, p. 96) was suggesting that evaluation should be 'illuminated' using the tools of art criticism.

Parlett and Hamilton (1976) describe illuminative evaluation as an approach where the main concern is description and interpretation, rather than measurement and prediction. As such, illuminative research cannot be fully chartered in advance. It begins broadly and systematically narrows with concentrated attention being given to emerging issues. This progressive focusing facilitates unique and unpredicted phenomena to surface and be given due weight.

According to Maxwell (1996), illuminative evaluation has an added dimension of intent, to improve existing practice by examining the process. In this sense the focus is on

identifying significant features and comprehending relationships between beliefs and practices.

Instructional System and Learning Milieu

These two central concepts are paramount to illuminative evaluation. The Instructional System comprises the formal plans and statements, which relate to particular teaching arrangements including pedagogic assumptions, syllabus, teaching techniques and equipment, used to frame the insights and understandings gained from investigating the learning processes in the Learning Milieu, which is the social and psychological and material environment in which students and teachers work together.

The Learning Milieu includes the network of 'cultural, social, institutional and psychological variables [that] interact in complex way to produce…a unique pattern of circumstance' (Parlett & Hamilton, 1976, pp. 89-90). The learning milieu connects in meaning with descriptions by Stephenson, Williams, Cairns and Critten's (1999) study, which identified features of a healthy learning milieu in social learning environments in organisations. Learning is prioritised, shared, interacts with work, is continuous, promotes personal growth and pays.

The Instructional System, in the case of this learnership, is dominated by the legislative requirements of SAQA and the NQF, which includes addressing (through the teaching methodology of outcomes based education), the achievement of critical cross-field outcomes, and a set of seven broad educational goals for enhanced democratic citizenship.

Differentiating the instructional system from the learning milieu is fundamental to illuminative evaluation. Parlett and Hamilton (1976) argue that the instructional system is abstract and only takes form when 'translated and enacted' by teachers and students, which differs in every context. The evaluator therefore needs to concentrate on the 'process' in the learning milieu rather than on 'products' specified by the instructional system (p. 100).

Objections and Limitations to Illuminative Evaluation

Parlett and Hamilton (1976) also explore the objections and limitations that could be raised against illuminative evaluation. A disadvantage of illuminative evaluation is its subjective nature due to the extensive use of open-ended techniques, the progressive focusing on

issues for investigation and the qualitative nature of the data. This also impacts on the scope, making illuminative evaluation more suited to small-scale studies. For this reason precautions are important, such as adherence to ethical considerations and careful triangulation, having the analysis and interpretation checked by others and transparent presentation of evidence so it can be judged (p. 76).

Illuminative Evaluation's Final Role

In their exploration of illuminative evaluation, Parlett and Hamilton (1976) discuss its role in reporting findings, adjudications and decision-making. In line with its participatory approach, findings should be communicated to interested parties. However, one important way in which illuminative evaluation differs from earlier evaluation approaches is that it does not deem the researcher responsible for making adjudications of worth or for decision making, but rather to reflect all viewpoints of participants. Illuminative evaluation concentrates on gathering and reflecting on communication information.

This illuminative evaluation study allows a data-rich investigation of the local. With vigilance, it may be possible to attempt a non-judgemental writing of the findings, not as an absolute truth, but as a story in context.

Parlett and Hamilton (1976, pp. 88-95) describe Illuminative Evaluation as an anthropological paradigm; an ethnographic approach which allows the study to focus on a specific context in which the learnership functions. In exploring the implementation of this learnership in a workplace in the insurance and investment sector, there are no pre-ordained criteria for what might constitute effective practices. The learnership is described as it is created and lived on a daily basis. Issues are allowed to emerge and those perceived as significant are explored further.

The two central concepts paramount to illuminative evaluation can easily be identified in learnerships. In this study, the Instructional System is used to frame the insights and understandings gained from investigating the learning processes in the Learning Milieu. Whereas the learning milieu provides the setting for interpretation (the classroom and the workplace in which the learning takes place), the instructional system is more abstract (a syllabus, a pedagogic set of assumptions), which requires the presence of the milieu for interpretation. Aspects of the instructional system, which are relevant, are documents

relating to the qualification, the learnership and the learning materials used. The learning processes in the learning milieu, on which this study focuses, are the interactions between learners, facilitators, mentors and learnership managers in facilitated theoretical learning sessions, group work, and meetings. The research examines the learning processes by which learners acquire a vocational qualification while working towards mastery of an occupational role. The structure, pedagogy, content, and outcome of selected parts of the learning programme are explored in its specific situational contexts.

The data collection instruments selected which are discussed next, were designed with Parlett and Hamilton's (1976) three interrelated stages of an illuminative evaluation in mind:

- Observe: which allows the researcher to look for common incidents, recurring trends, issues frequently raised in discussions, differing points of view or understandings of the learning process.
- Inquire Further: which enables the researcher to select a number of features, phenomena, or groups of opinion to be topics for further investigation.
- Seek to Explain: which allows the researcher to identify general principles, patterns of cause and effect and to arrange individual findings into the bigger picture for exploring effects and consequences and weighing alternative interpretations in the light of information obtained. Asking 'why' and focusing on 'what and how'.

In choosing the illuminative evaluation method for this research, there is also congruency with Fetterman (1998) in that the research aims for an emic insider's perspective of the reality of the learnership brought to life, using observation to set 'the stage for more refined techniques (p.45)'.

Resulting from various illuminative evaluations, Parlett and Dearden (1977, p. ii) affirmed that illuminative evaluation is a valuable method for dealing with programmes that have complex goals difficult to define, that are distorted by the local character of the institution, or are dominated by special influences. This recommendation had a great influence in the choice of using illuminative evaluation in this study of a learnership because learnerships in the insurance and investment sector fit the criteria highlighted by these authors so perfectly.

4.2.4 Researcher as Instrument

Researchers are socio-culturally located and, as ethnographers within an anthropological research paradigm, can themselves become the research instrument (Walcott 1988, p. 190). This emic or insider's perspective is also congruent with Fetterman (1998), who suggests using observation to set 'the stage for more refined techniques' (p. 45). However it can be a double-edged sword in an illuminative evaluation, aiding the development of the rapport so necessary for the gathering of rich data, yet a postmodernist stance requires the researcher to focus on his or her text because meanings are framed within an authorial context and expressed in the stories that researchers write about what they have discovered. As researcher interpreting information and analysing data, the researcher's authorial context may be exposed to personal bias, almost certainly adding personal colours into that Picasso-like construction of the 'truth'. Usher (1997) echoes this caution when he explains that we, as researchers, have a social autobiography which plays an important part in shaping our research and directing the kinds of reflexive questions which need to be asked, but rarely are.

4.2.5 Sampling and Sample Size

This study used purposeful and convenience sampling because the chosen worksite was accessible to the researcher with the researcher having credibility within that organisation. The learnership site was also chosen because of its reputation for quality training in the industry and experience with delivering previous Financial Sector Charter learnerships. The organisation is known in the sector as having a culture which values education and innovation.

The target population of this study consisted of five different types of participants. There were twenty-two black matriculant learners, who were employed by the organization for the duration of the learnership. There was a possibility of being offered permanent employment after successful completion of the learnership. Other participants in the study were the two facilitators from the external learning provider contracted for the classroom theoretical component of the learnership, as well as the two learnership managers from the employer organisation (one of them being the gatekeeper), and there were sixteen managers who took on the role of mentors in the workplace component of the learnership.

4.2.6 Scope, Limitations and Assumptions

One limitation of this research is its small scope. This study investigates one learnership at one site. However, by using an interpretive approach in examining different aspects of the learning as it unfolds, the approach provides detailed rich information, which fits well with the aims of illuminative evaluation. For example, the insights obtained come from the expressed personal viewpoints of five different types of participants, learners, facilitators, mentors, and learnership managers, obtained from both observations and interviews; as well as from the analysis of documentary information such as learning materials, learners' portfolios of evidence and journals. While detailed studies of a specific learning milieu such as this one may prove insightful and valid, the results are not externally generalisable in the sense that quantitative research allows. However, qualitative studies can have results that apply more generally, including, for example, 'the similarity of dynamics or constraints to other situations or corroboration with other studies' (Maxwell, 1996, p. 97). In this study the findings could prove relevant to learnership implementations in similar settings in the sector.

A second possible limitation is language. The learners have different home languages which I, as researcher, do not speak. It may be that information from spontaneous interchanges between learners, as they interacted among themselves, was not captured.
A further limitation is the size and consequent time of the learnership, with 1 200 notional hours[1] of learning being devoted to the achievement of 120 credits. This research focuses on investigating a selected number of different learning events at various phases of the learnership. This means that a relatively large portion of the learnership is not examined, with the possibility that some insightful issues may be missed and not form part of the data analysis and findings.

[1] SAQA, for the purpose of qualifications registered on the NQF, defines a notional hour as the total amount of time taken for learning including assignments, research, self-study and assessment. Hence one credit in the qualification equates to ten notional hours of learning.

4.2.7 Data Collection Methods

Methods Used to Illuminate the Instructional System: Document Analysis

The Instructional System of the Learnership was analysed through the examination of relevant documents, namely the learnership registration document from the Department of Labour; the relevant qualification document registered with the South African Qualifications Authority; the various documents published by the INSETA relating to learnerships; and the learning materials and assessment tools relating to four selected unit standards from the qualification. The purpose of examining documentary sources of information from the Instructional System was to:

- understand the prescribed framework for the existence of the learnership;
- explore planned strategies to link theoretical learning and practical application;
- support insights from interviews and observations;
- document analysis provides a behind the scene look at the learning programme not observable and perhaps not asked about appropriately in interviews.

Limitations: incompleteness, poor quality of information.

Methods Used to Illuminate the Learning Milieu

The learning milieu was investigated using naturalistic observation:

- **t**o capture a continuous record of what happens, the events, transactions and relationships between learners, facilitators, line managers, mentors, and learnership managers;
- to provide a check on what is reported in interviews; and
- to observe evidence of application of the two fundamentals of SAQA and the NQF: Outcomes Based Education Methodology and addressing the Critical Cross-Field Outcomes in the learning.

The teaching of four Unit Standards was observed involving nine separate instances of naturalistic observations, seven of classroom teaching, two of formative and summative feedback and one field trip to the South African Mint These naturalistic observations are a true recording of events aimed at revealing ‘the language conventions, slang, jargon and metaphors that characterise conversation within each learning milieu which reveal tacit

assumptions, inter-personal relationships and status differentials' (Parlett & Hamilton, 1976, p. 94). According to Patton (2002), observation should reveal the context, highlights and nuances, which may be hidden within routines, allows insight beyond the selective reported perceptions of the people interviewed and is essential for 'a holistic perspective'.

A limitation is that the observer may affect processes by focusing on external behaviour or through having a selective perception, which may influence what is noticed and not noticed.

A 'Coat of Arms' exercise is used as an alternative to interviews for gathering insight into the learners' background history, their reasons for being in the learnership and their expectations. In a workshop learners were taught about heraldry and the concept of a coat of arms telling a story about an individual. They were then asked to prepare a personal coat of arms telling the story of their past, present during the learnership and their vision for their future.

A limitation is the time necessary for each learner to prepare for presenting his or her 'Coat of Arms', and ensuring an open climate of safety and mutual trust and respect where learners feel comfortable enough to reveal personal information.

Twenty-one interviews with learners, two interview with facilitators, sixteen interviews with mentors, and two interviews with learnership managers are used to discover the experiences, views and opinions of participants regarding the programme and its impact on them. Interviews offer opportunities to find out things not directly observable, to probe thoughts and feelings and to explore emerging new information.

A limitation may be the possibly distorted responses caused by bias, anxiety or cultural perspectives, which gives each individual unique frames of reference, and also the interviewer's lack of awareness of the interviewees' emotional state. Another is recall error. Or even reaction of interviewee to interviewer.

4.2.8 Data Analysis

According to Rule and John (2010), interpreting the case through data analysis is an intensive creative intellectual process of working with the data to find patterns of meaning. Key research questions are used to guide the analysis. In this case, study data analysis can be divided into two stages: preparation and analysis. The preparation stage involved becoming familiar with the interview and observation data by reading through all the transcripts. In the case of interviews, the following steps followed:

- major themes in the conversation between researcher and participant at the interview were coded and identified;
- reduction of the individual answers;
- classification of answers into categories;
- comparing and contrasting of categories of answers to identify unique characteristics;
- naming of categories to highlight their essence, i.e., conformation of coding; and
- an analysis of discourse to interpret the dynamics of relationships for example, between learner and mentor.

With regard to observations, the thick descriptions of lessons and events observed were checked against a list if criteria to confirm, at an overt level, the presence of salient features of OBE methodology in the teaching and learning encounters, as well as the achievement of CCFOs. On a covert level, observation content, themes and discourse were analysed to interpret the dynamics of relationships between learners and between learners and facilitators.

The analysis of documents was done to further develop an understanding of the special local conditions of the case and its background and guiding rules, to explore emerging themes, and to triangulate data from the other two sources to further identify contradictions between sources.

In summary, some sensitising concepts the researcher may have brought to the data through the framing of some questions came from the analysis of existing research. This influence and the broad and flexible nature of the illuminative evaluation required the researcher to ensure a focus on the stipulated criteria and limits of the research, for example, identified

categories or themes. Using preliminary counts of data, as suggested by Creswell (1998) to determine the frequency of categories, proved useful in dealing with the large amount of data gathered. As the research became progressively more focused, guided by emerging issues, codes were developed for identified issues, as suggested by Huberman (1984, p. 68). As the data grew, it was possible to identify themes and patterns for inductive analysis. This analysis involved looking for categories in the data, establishing whether these fit into patterns and identifying any correspondence between categories, representing relationships visually and, finally, arriving at detailed descriptions. Some emerging data thus became important to include, as for example the additional training learners received from the South African School of Business, which was often mentioned at the interviews with learners, but which was outside the requirements of the learnership, yet seemed to add good value to the learning Rigour was maintained by focusing on data that responds to the research questions and the stated purpose of the research. Care was given to the organisation and storage of data in order to facilitate analysis. An example of funnelling effect is seen in the data presented on the tables in chapter 5 pages 83 to 85 where themes are presented which have distilled large amounts of data focusing on information about workplace experience, perceived benefits of theory to workplace application, quality of mentoring and experiences with employment.

4.2.9 Validity

In order to gain the richness of perspective and the depth of understanding which illuminative evaluation demands triangulation is important. This means using a variety of sources and methods to ensure the qualitative information gathered can be checked for authenticity. This triangulation approach facilitates the cross checking of tentative findings along the way, as it is the nature of illuminative evaluation to begin broadly and progressively narrow the focus as issues are identified. Using different data sources to cross check findings and reverting to participants for clarification aids validity. In this study, triangulation comes from observations of lessons in and out of the classroom and of interactions at meetings and interviews with the different role players. It also derives from analysing documentary information. Each of these data sources has strengths and weakness and so complement each other. For example, observations may offer information not obtainable from interviews and may also offer insight into issues to be probed further during interviewing.

4.2.10 Ethical Considerations

Transparency and the safeguarding of participants' privacy and dignity were guiding principles for this research. Confidentiality of information was maintained by using pseudonyms in all reporting. In interacting with the people involved in this learnership, great care was taken to ensure that the research process itself did not affect or harm them. The dialogue that can develop as a result of the research process has the potential to affect people because the research requires them to explore their thoughts, feelings, knowledge and experiences. According to Patton (2002), 'The process of being taken through a directed, reflective process affects the persons being interviewed and leaves them knowing things about themselves that they didn't know – or least were not fully aware of – before the interview' (p.405). Because it is difficult to know the extent of any possible impact, if any, participants were given clear and transparent information about the purpose of the study. It was explained that the evaluation is of the learnership itself and not in any way involve any form of a judgment of people. Participants were told what the information would be used for and how it would be used. The potential risks and benefits of this reflection was explored with them, at the information sessions, before they are asked to grant consent, and again when they were being prepared for the Coat of Arms exercise. Appendix L contains the information sheet consent form.

4.3 Conclusion

Parlett and Hamilton (1976) provide this lucid summary of the aims of illuminative evaluation, which are the aims of this research study.

> To study the innovatory project; how it operates; how it is influenced by various school situations in which it is applied; how students' intellectual tasks and academic experiences are most affected. It aims to discover and document what it is like to be participating in the scheme, whether as teacher or pupil; and in addition, to discern and discuss the innovation's most significant features, recurring concomitants, and critical processes (p. 89).