Identifying a leverage point to improve business performance through eLearning: A case study in a financial institution

by

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2: Abstract

In an ever-changing world of work Absa, as a business, is faced with various challenges including the continuous development of skills. Due to technological advancements, eLearning can provide a mechanism to rapidly build the required strategic and tactical skills that the organisation needs. This study explored the challenge of articulating the contribution of eLearning to business performance in an unbounded way.

The study focused on the **creation of knowledge about how the contribution of eLearning to business performance can be improved.** In the process of knowledge creation, the study focused on identifying the point of value creation between Business[1] and an eLearning intervention. This **point of value creation** can be seen as a **leverage** point. Systems Thinking was implemented as an approach in order to identify the leverage point.

The following **research objectives** were defined:

- To identify the **driver problem**[2] that prevents eLearning from improving[3] business performance.
- To design the **systems dynamic model**[4] that represents the driver problem.
- To identify the **leverage point**[5] within the systems dynamic model.
- To reflect[6] on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

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[1] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – operational management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

[2] The driver problem is the leverage point in a system of problems. Removing this driver problem will influence the system the most.

[3] Contributing to a positive influence, or taking advantage of (Senge *et al.* 1994).

[4] A **systems thinking diagram** is a tool that supports us to see the underlying structures of events and patterns (Salisbury, 1996).

[5] **Leverage** in a systemic context can be seen as the concept where specific element/s of a system have a **large influence** on the holistic system by even the smallest action.

[6] Reflection includes the observation of the behaviour of the Focus Group participants and the attempt to understand the effect of these behaviours on the outcome of the study.

The sample of 28 focus group participants was selected from two specific divisions of Absa – the eChannels: Contact Centre and the Learning and Development Department. This sample consisted of Operational Management, Team Leaders, Contact Centre Consultants and learning design experts. Executive Management was excluded from the focus groups, but was included in the process as verifiers. This created an opportunity for Executive Management to voice their opinions.

The results of the study indicate that the leverage point for successful contribution of eLearning to business performance is …

A shared mental model of expectations between the participating stakeholders.

Once Business and the Learning and Development Department start going through the constructive cycle of the systems dynamic model repeatedly, they will continuously build the **shared mental model of expectations**. This cycle will also build on the: 1) Level of **visible support** of the line managers; 2) Level of **clarity of business needs** to all relevant stakeholders; 3) **Number of requests** from business for eLearning opportunities; and 4) Level of **awareness and understanding** of appropriate eLearning interventions per target population. The effect of the positive reinforcement of the recurring cycle will ensure that eLearning continuously contributes to business performance.

During the study the effect of the research process on the focus group participants as well as the effect of the focus group participants on the research process was also accounted for. Observers reflected on the behaviour of the focus group participants and found that their opinions and thought processes influenced the outcome of the study. The focus group participants felt that they had learnt something new, that the tasks set to the groups was clear and that the topics they had learnt most about were '**systems thinking**' followed by the '**relationship between eLearning and business performance**'.

Keywords: eLearning, Business performance, Leverage point, Systems Thinking, Driver problem, Focus Groups, Systems dynamic model, Financial institution, Return on expectation, Return on investment.

3: Acknowledgements

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Chapter 1: Background and research problem

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1.1. Introduction

Jessica Knight (Woolworths inthebag) stated that:

> *The real challenge for successful new-economy strategies is to harness the power of technology in a way that meets the customers' needs and overcomes real-world constraints, such as physical fulfilment, whilst still driving long-term value* (Loewen, 2001:I).

The context of this study is set within the words of Jessica Knight. Within this new-economy eLearning, as a technological solution, also has to find a way in which to meet the customer's needs and to overcome real-world constraints like bandwidth, whilst still contributing evidently to business value.

The context of the study is further defined within Absa. Absa is a financial institution tasked with providing banking services to the South African

population. Absa consists of 44 Business Units that each have a specific focus and objective towards servicing Absa's clients.

Absa as a business is faced with challenges that could include technological advancement, varying customer needs or creating shareholder value in changing market conditions. Absa Business Units act upon these challenges in different ways, for example:

- Redesigning the business unit strategy;
- Implementing tactical strategies to meet customer demands;
- Changing policies and procedures;
- Re-engineering operational inefficiencies;
- Implementing cultures that will sustain the company in the future; and/or
- Implementing learning solutions that will sustain the skills development necessary for the future (Absa Task Team, 2002).

The Absa Learning and Development Department focuses on delivering learning solutions to Business Units within the Absa environment. One of the delivery mechanisms implemented by them is eLearning. This Department is however, constantly faced with feedback from the Business Units that their needs are not met and questioned as to what value an eLearning solution has.

The question being asked by Business Units is:

How does eLearning improve business performance?

In order to explore this question, the meaning of value needs to be considered. "Depending on the purpose of the valuation, or the context within the valuation, one definition [meaning] of valuation may be more appropriate than another." (Burkert, 2004). Therefore, in considering the value of an eLearning solution, there seems to be not only one answer, but a collection of conversations and debates around the purpose and context of value.

In this chapter the research study is outlined by providing a context for the research problem and explaining the reasons for adopting Systems Thinking

as an approach in identifying the **leverage point**[1]. The purpose and objectives of the study are stated, and the research process that was applied to generate and collect data for answering the research questions, is outlined. The research philosophy, approach and strategy, and the subjects from whom information was elicited, are described. The criteria for judging the quality of the research are listed and the potential value of the study is defined.

The rationale for the study provides the context for the research problem. The research problem is grounded within the literature.

1.2. The rationale for the study

A number of studies indicate that eLearning is implemented to improve business performance (Pope, 2001; McGuire & Goldwasser, 2001; Arnold 2001; Sanders, 2001). However, these studies also indicate there are various expensive lessons to be learnt. These lessons span over various disciplines and examples are listed below.

- Bad design of content.
- Lack of skills of the target population.
- Lack of technology availability and stability.
- No **clear line of sight between learning results and business results** (Pope, 2001; McGuire & Goldwasser, 2001; Arnold 2001; Sanders, 2001).

From a Business[2] point of view, the inability to interpret learning results, in relation to company performance, is problematic.

Systems Thinking is introduced to this study to provide an **alternative perspective** for understanding and learning about the underlying structures of the research problem rather than addressing the effects of the problem. The

[1] A leverage point (or points) presents a place to pursue business goals in a way that takes advantage of, instead of working against, the systemic structures that support them (Senge, Kleiner, Roberts, Ross & Smith, 1994).

[2] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – operational management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

process ultimately leads to the identification of a leverage point. The **leverage point** will allow Business and the Learning and Development Department to focus their efforts in utilising eLearning to improve business performance.

1.2.1. The position of the study

The introduction of Systems Thinking brings a certain worldview to the study. The Systems Thinking lens shows the world and humans as **living organisms part of a systemic whole** (Wheatley, 2001). Within the systemic whole, people are social actors that respond humanly to different situations. The systemic whole consists of multiple realities and versions of the truth. Different people see different aspects of the same phenomenon.

The **assumptions and beliefs of people** about a specific phenomenon – in this case eLearning contributing to business performance – are at the heart of the study. In the phenomenological[3] approach these assumptions and beliefs are seen as part of the creation of meaning in a specific context of the bigger world.

From an **ontological[4]** perspective the research is about people and how they perceive a specific phenomenon from their worldview. From an **epistemological[5]** perspective, the sources representing legitimate knowledge are seen as workable conversations between people voicing their assumptions and beliefs, the non-verbal interactions between the people and the written feedback provided by the

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[3] "Phenomenology, a 20th-century philosophical movement, is dedicated to describing the structures of experience as they present themselves to consciousness, without recourse to theory, deduction, or assumptions from other disciplines such as the natural sciences." (Phenomenology Homepage, 2004).

[4] The **ontological perspective** describes **what** the research is about in a fundamental way. It requires the researcher to position herself and to understand how **her worldview influences the research carried out** (Mason, 2002).

[5] According to Mason (2002:16) the **epistemological perspective** debate is about what might "… represent knowledge or evidence of the entities or social 'reality' that I … investigate".

participants about the deeper structure of the phenomenon. Another source of knowledge is feedback from the participants about their experience during the research process.

The position of the researcher had a significant influence on positioning the study.

1.2.2. The researcher's position in the study

The researcher is a Project Manager for the Absa People Management Division. The People Management Division is based in South Africa. The key focus as a Project Manager is to provide integrated, cost-effective people management solutions to Business Units. This includes all disciplines of the people management field, for example: learning and development, organisational development, talent management and industrial relations.

The researcher is **biased** towards believing that eLearning does add value to business performance. Furthermore she has strong opinions about how Absa should go about linking eLearning and business performance.

The researcher **deferred bias** through the actions listed below.

- Focus groups were allowed to gather and generate data and do the data analysis.
- A moderator was appointed to independently guide the data generation and analysis workshops.
- Observers were appointed to comment on the process followed throughout the study, to reflect on the behaviour of the focus group participants and to ensure that the researcher did not unduly influence the process and outcome of the study.
- Colleagues and verifiers were allowed to comment on the outcome of the study.

1.3. The research problem

The visionaries of eLearning see the **utopia of eLearning** … (Pope, 2001).

Technologies are moving towards an integrated platform, quality content is delivered seamlessly, is effectively implemented and tracked effortlessly. This results in organisations becoming learning enablers (Pope, 2001).

The described world of eLearning seems to provide an answer in terms of business performance required by eLearning. The debate however becomes heated when the contribution of eLearning to business performance has to be proved.

The **practical problem** that this study addresses is the misalignment between the views of the Learning and Development Department and Business regarding the contribution or value-add of eLearning to business performance. While the Learning and Development Department believes that they are following world-class processes, they are constantly requested to justify how eLearning adds value to the business results.

The **core problem of the study** is to determine how eLearning can contribute to the improvement of business performance. This debate seems to be an industry issue where eLearning specialists are on a constant quest to provide evidence that they are adding value to business performance (ASTD, 2004; Phillips, 2004; Corporate Leadership Council, 2001c; Corporate Leadership Council, 2000; PrimeLearning, Inc., 2001). The study will therefore focus on the **creation of knowledge about how the contribution of eLearning to business performance can be improved.**

In the process of knowledge creation, the study will focus on identifying the point of value creation between Business and an eLearning intervention. This **point of value creation** represents a shared space that is created between the learners, their management and the Learning and Development Department so that these role-players can agree in advance on where and how an eLearning intervention must make a difference. They must therefore have a common understanding of exactly where the point of value creation is.

In this study, it is proposed that this **point of value creation** can be seen as a **leverage** point. Systems Thinking is suggested as a process to attempt to delve deeper into the structure of the problem in order to uncover alternative structures, events, trends and patterns resulting in a focus or leverage point (Strumpher, 2001; Senge, Kleiner, Roberts, Ross & Smith, 2001).

Due to this debate – the contribution of eLearning to business performance – Business Units design and develop their own traditional training. This is specifically true in the case of the eChannels: Contact Centre division. This has a **negative impact** on Absa as a whole as it results in:

- duplication of resources developing learning material;
- duplication in the costs arising from the design, development and implementation of the learning material;
- the negation of the image and credibility of the Learning and Development Department;
- expensive, unutilised eLearning infrastructure; and
- a negative impact on business performance as it takes longer to train the relevant frontline staff as this Division does not have the relevant infrastructure to train employees at the same rate that Absa is launching new products to prospective clients. The clients are then in some cases more informed than staff members.
- In some cases **no training** happens due to time constraints which can lead to sub-standard services provided to Absa clients.

The research problem sets the scene for the purpose and the objectives of the study.

1.4. The purpose and objectives of the study

The **purpose** of this research project is to identify leverage point/s that will improve business performance through eLearning.

Given the purpose, the **objectives**[6] are to:

- identify the **driver problem**[7] that prevents eLearning from improving business performance.
- design a **systems dynamic model** that represents the driver problem.
- identify the **leverage point** within the systems dynamic model.
- reflect[8] on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

The research objectives were designed to generate and collect data to answer the research question.

1.5. The research question

Based on the purpose of the research and the research objectives, the main research question can be phrased as:

What is the leverage point that will improve business performance through eLearning?

The research question and Systems Thinking create the context for the following subsidiary questions to be answered in the study:

- What are the **problems** related to improving business performance through eLearning?
- What is the **key driver/s** of the identified problems?
- What is the **system in focus**?
- Who are the **main stakeholders** influencing the system in focus?
- How can the system in focus be presented **systemically**?
- What is the **leverage point** related to the system in focus?

[6] The colour coding of the research objectives are used throughout the study to indicate the content belonging to a specific research objective.

[7] The driver problem is the leverage point in a system of problems. It is therefore the problem that influences the system in focus the most.

[8] Reflection includes the observation of the behaviour of the focus group participants and the attempt to understand the effect of these behaviours on the outcome of the study.

- How does the **behaviour** of the individuals participating in the research process influence the research inquiry?

Table 1.1 summarises the research question, research objectives and the subsidiary questions. The subsidiary questions are also described in more detail.

Table 1.1: The research question, research objectives and subsidiary questions

Research question	Research Objectives		Subsidiary questions	
What is the leverage point that will improve business performance through eLearning?	1. To identify the driver problem that prevents eLearning from improving business performance.	4. To reflect on the effect that the behaviour of the individuals, participating in the research process, has on the research inquiry.	What are the problems related to improving business performance through eLearning?	How does the behaviour of the individuals participating in the research process influence the research inquiry? What effect does the process have on the individuals participating in the research inquiry?
			How can the problems be grouped together as themes?	
			How do each of the themes influence each other?	
			What is the driver problem?	
	2. To design the systems dynamic model that represents the driver problem.		What is the system in focus?	
			Who are the stakeholders in the system in focus?	
			How can the influence of the stakeholders be described in terms of power and satisfaction?	
			What are the measures of performance?	
			What are the co-producers for each of the measures of performance?	
			How can the elements of the system in focus systemically be represented?	
	3. To identify the leverage point within the systems dynamic model.		Which of the co-producers influence the systems dynamic model the most?	

The **research process** is defined through the research philosophy, approach, strategy, time horizon and data collection methods. In this study the research philosophy was categorised as **phenomenological** and framed within the Systems Thinking context. The research approach was seen as both

abductive[9] and **inductive**[10], allowing for repeats of data generation and sense making.

The **qualitative case study** was employed as the research design providing rich and thick data about the specific phenomena. The implementation of the research design was conducted over a **short period of time** (June – July 2003), allowing only a snapshot into the thoughts of people with regards to eLearning and business performance. The time horizon of the study is therefore **cross sectional**. Four data collection methods were used namely interviews, focus groups, observation and a survey.

The research process was influenced by the scope of the study.

1.6. The scope of the study

The study was conducted in South Africa in the Gauteng province. The content of the eLearning project was contained within the financial sector, specifically Absa Bank. Two specific Business Units within Absa Bank were involved:

1. eChannels: Contact Centre Division; and the
2. Group People Management: Learning and Development Department.

The influence of the external environment on the Absa system[11] was briefly taken into account in terms of the international trends and how the Absa system reacts upon these trends.

Figure 1.1 is a diagrammatic representation of the systemic influence in the scope of the study. The figure presents the external world having an interaction with Absa as a company. The external pressure results in the Business Units reacting in different ways such as a change in the strategy of

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[9] Blaikie (2000:25) describes the "**abductive research strategy**" as the process of moving between everyday concepts and meanings, lay accounts and social science explanations.
10 Saunders et al. (2000:91) states that the inductive approach emphasises gaining access to understanding of meaning humans attach to events, a close understanding of the research context, the collection of qualitative data and less concern with the need to generalise.
[11] The 'system' referrers to all the Business Units in Absa.

the Business or the launch of a new product. Another reaction could be a **request for learning**.

Pressure on cost has also leaded the Learning and Development Department to implement new cost-effective ways to deliver learning solutions. Due to the cost efficiency and availability of the Absa eLearning infrastructure, an eLearning solution is designed. At the point of value creation where the eLearning solution is implemented in the Business environment, **the practical problem originates**. In order to eliminate the misalignment between the Business Unit and the Learning and Development Department, it is proposed that a leverage point is determined by both parties that will ensure that eLearning will contribute to the improvement of business performance.

Figure 1.1: Diagrammatic representation of the systemic aspects in the study

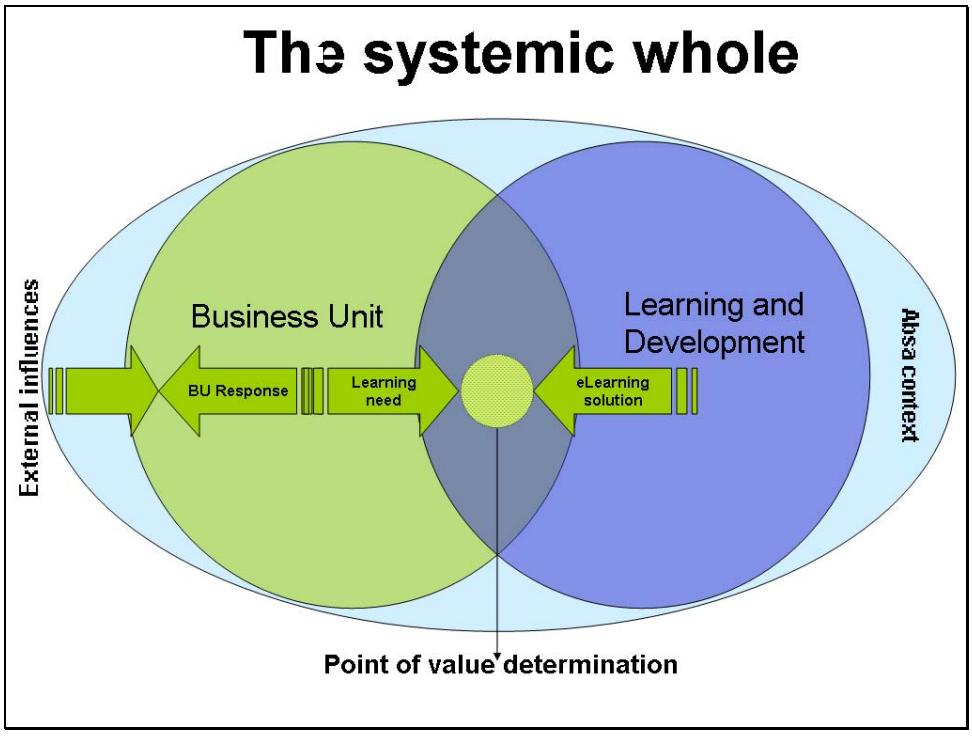


Figure 1.1 further illustrates that certain aspects are excluded from the study as well as that there are clear boundaries and limitations to the study. The boundaries of the study are discussed below.

1.6.1. What is excluded from the study?

Although the outcome of the study will have practical implications for all the role-players involved, the **actual implementation of the results is excluded** from this report. The boundary for this study is the identification of a leverage point. The implementation of solutions is therefore beyond the scope of this study. Further to this, the study will not be generalised to include other financial institutions. The intent of this study is to define rich and thick data in the context of a real-life case study. The generalisation of the outcome of the study is therefore not a major focus.

Executive Management displays a positive attitude towards eLearning. **Operational Management** however displays open animosity towards eLearning as a learning solution. A decision was made to exclude the Executive Management based on their positive attitude as well as the influence that they would have on the results produced by the focus group participants. All effort was made to include the opposing views of the Operational Managers. The Executive Management was however included in the verification sessions[12], as this allowed them to give maximum input in a limited time frame.

1.6.2. What are the limitations to the study?

The availability of resources to participate in the study was limited. The study was contained within the Absa environment. Two specific Business Units were selected to participate – the Learning and Development Department and the eChannels: Contact Centre. These Business Units were selected due to their active implementation of eLearning. Some of the other Business Units in Absa are still in the process of rolling out eLearning as a learning delivery solution.

The resources available for the study were limited to the employees from the above mentioned departments who were exposed to specific eLearning interventions and who accepted the invitation to participate in the study. The exclusion of Executive Management from the focus

[12] All the data that was generated and analysed by the focus group participants was verified by three members at an executive management level.

groups, also limits the study to the opinions and thoughts of the Operational Managers, their colleagues, the employees (learners) and the members of the design and support teams.

Although Absa offers a wide range of learning delivery mechanisms, this study was limited to exploring eLearning as a delivery mechanism. This was done in order to understand the effect of eLearning as a separate entity on business performance.

In terms of literature, the National Qualifications Framework and the South African Qualification Authority's models and theories are seen as outside the scope of the study, as the relevance of these models and theories are of limited importance within the boundaries of the study.

Based on the research purpose, objectives and scope of the study, a research design emerged to collect evidence for each of the subsidiary research questions.

1.7. The research design

The research design for this study was formulated according to the perspectives listed below.

- Research strategy.
- Data collection methods.
- Data collection instruments or processes.
- Data sources.
- Timing in terms of when the instrument is administered.
- Qualitative vs. quantitative nature of the data.
- Trustworthiness and continuity of the data (Mason, 2002; Saunders *et al.* 2000; Merriam, 1998; Yin, 1989).

A qualitative case study was selected as research strategy, as it could provide the required meaning in context, utilising human opinion to interpret the relations between business performance and learning. The data collection methods and instruments were carefully selected to ensure sensitivity to underlying meaning.

Interviews were used for collecting qualitative data about opinions of the colleagues of the focus group participants, the observers, the moderator and the verifiers. Focus group interviews were used to collect qualitative data about the opinions, assumptions and beliefs of the participants' about the phenomenon at hand. Observation was used to collect qualitative evidence about the influence of the behaviour of the focus group participants on the outcome of the study. Lastly, a survey was used to collect both quantitative and qualitative data from the focus group participants about how they were influenced by the implemented research process.

The research design is summarised in Table 1.2, reflecting the research strategy, data collection methods and instruments, and data sources (including the subjects of the study).

Table 1.2: The research design

Research Strategy	Qualitative Case study							
Data collection methods	Interview			Focus group interview		Survey		
				Inquiry	Observation			
Data collection instrument/ process	Interview sheet	Post focus group discussion with moderator and two observers	Verification of focus group outputs with three eLearning experts	Systemic inquiry process	Observation report	Biographical information questionnaire (Part 1)	Post focus group questionnaire (Part 2)	
Data source	Colleagues of focus group participants	Moderator Observers	Verifiers	Focus group participants	Focus group participants	Focus group participants	Focus group participants	

The overall research design was a **qualitative case study**. This research strategy was selected based on the need to collect rich and thick data in a

real-life scenario. Four data collection methods were implemented. These were:

1. interviews;
2. focus group interviews;
3. observation; and
4. a survey.

Each of the data collection methods was implemented through data collections instruments that were carefully designed to collect the required data. The instruments and their design are discussed in detail in Chapter 3.

The following role-players, who acted as data-sources in the study are listed below:

- focus group participants;
- colleagues of the focus group participants;
- the moderator;
- observers; and
- verifiers.

Further details on the role-players, who they were and the roles that were contracted with them are discussed in Chapter 3.

The research design was implemented in three phases – Preparation, Execution and Closure. Figure 1.2 reflects the activities per phase that were implemented.

Figure 1.2: The data collection and analysis process – Preparation, Execution and Closure

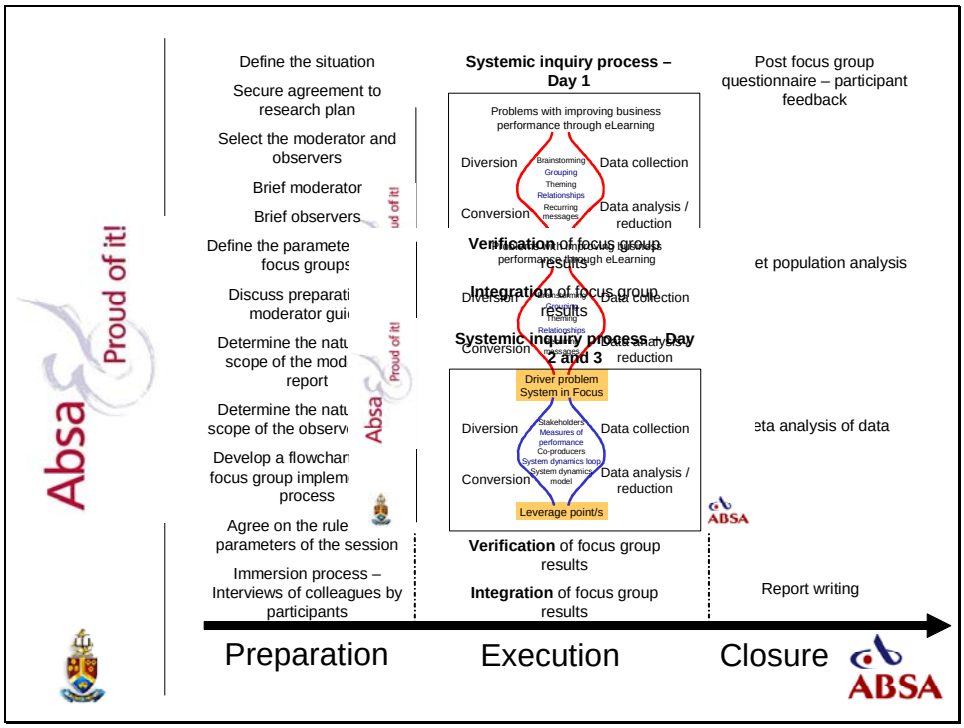


Figure 1.2 was designed from collective input from different sources (Strumpher, 2003; Goebert & Rosental, 2002; Krueger & Casey, 2000; Greenbaum, 1988; Morgan, 1988; Templeton, 1987; conversations with the verifiers Lawrence Mlotshwa, Dr. Beatrice Horne and Barry Vorster on 10 and 18 July; conversations with the observers Lee-Anne Deal and Sophia Nawrattel on 1 July; conversation with the moderator Christa Swart on 3 July; conversation with Johan Heroldt on 1 July).

From Figure 1.2 it can be seen that the preparation completed during the first phase provided significant input and context to the execution phase. It included resource allocation, process preparation and data collection by the focus group participants from their colleagues.

Various role-players enacted the research design. One set of role-players was the sample or the subjects of the study.

1.7.1. The subjects of this study

The significance of the wider universe from which the sample was drawn, is grounded in the broad ontological perspective of the study (Mason, 2002). The ontological perspective of this study frames people as being part of a wider holistic system which is constantly changing and renewing itself. It places the person and his/her

personal values, assumptions and beliefs at the core of the study. Due to this, all the results of the study are only relevant in the specific context created by the boundaries of the qualitative case study within the bigger universe.

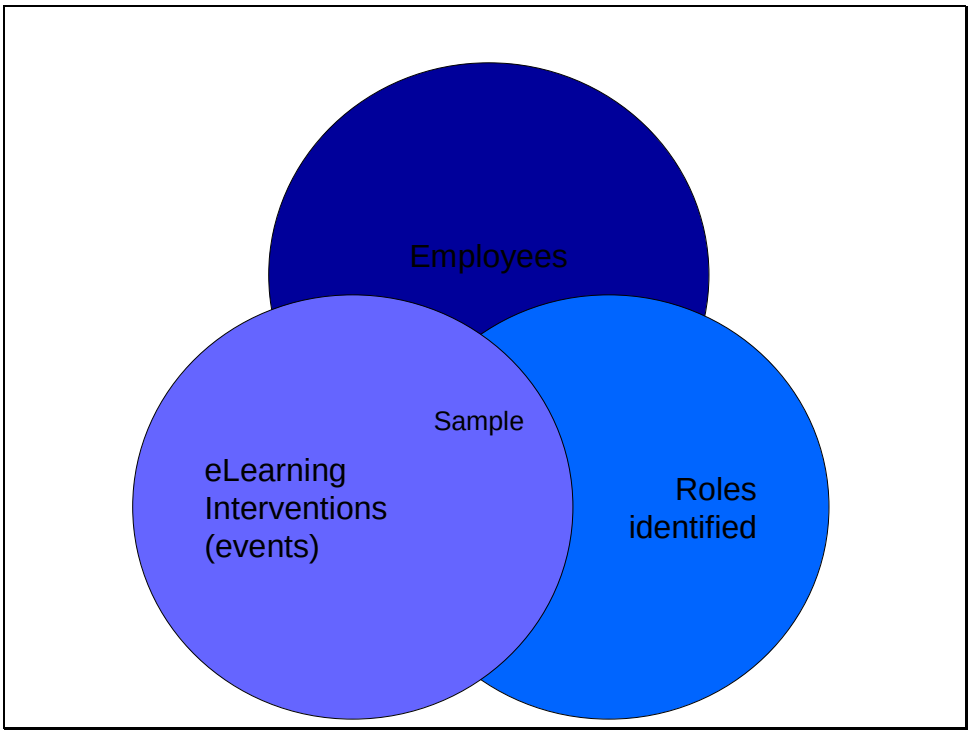
A **specific sample had to be selected as focus group participants**. The focus group participants in turn **selected a sample of colleagues** to broaden their perspective on how eLearning can improve business performance.

The focus group participant sample was selected from the Absa system. The specific environments involved were the Learning and Development Department and Group eChannels: Contact Centre. Further to the sample being part of this system, the individuals had to be exposed to specific events and happenings (Mason, 2002), in this case two eLearning interventions:

- eChannels Socialisation; and/or
- Fraud Awareness.

The selection of the sample was based on the involvement of the role-players in eLearning interventions and their willingness to participate in the study. The Learning and Development Department designs and develops eLearning and thus is an important role player. eChannels is one of the Business Units in Absa that participates actively in eLearning. The learners and managers participating in the eLearning program also seem very opiniated about eLearning and the value that it adds to business performance. eChannel's willingness to participate and to voice their opinions made them an ideal partner for the study. Figure 1.3 illustrates how the sample was selected by overlapping the target population, selection criteria and roles.

Figure 1.3: An integrated view of the sampling for the study representing whom was sampled according to specific criteria



The focus group participants sampled the **colleagues** that they interviewed based on their participation in the eLearning interventions. The timing of this interview was important as enough time needed to be allocated for conducting the interviews, but the knowledge gained by the focus group participants also needed to be recent enough to be of value in the systemic inquiry process. These interviews were therefore executed during the two weeks before the focus group sessions took place.

Each participant was requested to interview **five** colleagues, selecting them based on their own network and availability (convenience) of both the participant and the colleague.

During the design, development and execution of the research design, various ethical considerations were taken into account.

1.8. Ethical considerations for the study

Ethical considerations were critical during the conduct of this research project. These considerations were valid during the planning, executions and closure of the study. “In the context of research, ethics refers to the appropriateness

of the researcher's behaviour in relation to the rights of those who become subject to the research, or are affected by it" (Saunders *et al.* 2000:130).

Some of the **general ethical issues** that influenced this study are listed below.

- The privacy of possible and actual participants.
- The voluntary nature of the participation of the selected participants who reserved the right to withdraw from the process.
- The consent and possible deceptions of participants.
- Maintenance of the data shared in confidentiality specifically during the semi-structured interviews and the focus groups.
- The reaction of the participants to the way in which the data is collected.
- Effects on the participants in the way that the data is analysed and reported.
- The behaviour and objectivity of the researcher (Saunders *et al.* 2000).
- Being honest with the participants and keeping them fully informed (Gibbs, 1997).

The ethical issues relevant to this study during the **design, initial access and data collection** stages are listed below.

- The nature of the participant consent that ranges from lack of consent to informed consent.
- The right of privacy of participants after agreeing to participate in the study.
- The objectivity of the researcher in relation to the data that is being collected.
- The behaviour of the researcher towards the participants, specifically during the implementation of the focus groups.
- The behaviour of the focus group participants towards their colleagues during the semi-structured interviews.
- The respect of privacy during the observation and to adhere to certain permissible boundaries (Saunders *et al.* 2000).

The ethical issues relevant to this study during the **analysis and reporting** stages are listed below.

- Maintenance of the researcher's objectivity was critical in this phase.
- Respecting the contracted confidentiality and anonymity of the participants in the study.
- The potential misinterpretation of the data and results in this study by decision makers – this is specifically important if the participants will be negatively impacted by the decisions (Saunders *et al.* 2000).

Saunders *et al.* (2000) suggests a checklist to anticipate and deal with ethical issues in a research project. This checklist was applied in this study. The actions that were put in place for each required checkpoint are listed in Table 1.3.

Table 1.3: A checklist to anticipate and deal with ethical issues

Checkpoint	Action taken in this study
Attempt to recognise potential ethical issues that affect the proposed research	Ethical issues for the research design, data collection methods and the general issues for the study were listed. The main points ensured were the privacy of the focus group participants, the objectivity of the researcher through appointing an independent moderator in the research process, and the accuracy of the data through checking the outcomes by verifiers.
Anticipate ethical issues during the design stage of the research	Ethical issues for the design stage of the study were listed. Informed consent was required from the focus group participants though a detailed invitation. The code of conduct was developed for the researcher, the moderator and the observers, depicting the behaviour required during the focus group session. Utmost care was taken to protect the privacy of the focus group participants and their names were in no way implied in the results of the study.
Respect others' rights to privacy	The researcher strove to align a high degree of integrity and transparency by continuously giving the participants feedback of what was done with the research results and what they would be used for. The utilisation of the results was negotiated before the individuals participated in the focus groups.
Maintain objectivity and quality in relation to the processes used to collect data	Expert verifiers created an audit trial of the data to contain the bias of the researcher and ensure the quality of the data in relation to the process used to collect the data. Third parties (in this case the focus group participants) did the data generation, collection and analysis in order to ensure that the researcher do not influence the outcome of the results.
Protect individual participants	The data that was collected, analysed and reported, went through a reworking process. The data was carefully represented in order to not implicate any specific individual.

Specific strategies were put in place to ensure the trustworthiness and credibility of the research.

1.9. Criteria for judging the quality of the research

The study supervisor, researcher, moderator, observers and verifiers all played a role in ensuring the quality of the research. These role-players ensured precision throughout the process, checking for bias, neglect or lack of precision, adding and removing content where necessary. The procedures implemented during the study and the decisions made were critically reviewed allowing for a positive knowledge building cycle (Mason, 2002).

Member checking was implemented to ensure that the researcher correctly interpreted the results of the focus group participants. Verifying that the design was built for action and that it could be implemented under reasonable circumstances, ensured the validity of the data (Mason, 2002).

The strategies ensuring the quality of the research can be summarised as collaborative research, peer examination, building an audit trial, declaring the researcher bias and triangulating data by using more than one data collection method (Mason, 2002).

Triangulation was realised through using four data collection methods – interviews, focus groups, observation and a survey. Multiple sources for collecting data were also used including:

- Absa employees exposed to eLearning;
- Colleagues of the focus group participants;
- Moderator;
- Observers; and
- Verifiers (Mason, 2002; Saunders *et al.* 2000).

Six data collection instruments were used to collect the data from the above sources, including an interview sheet, post focus group discussions, verification discussions, a moderator guide, observation sheets and an electronic survey (Mason, 2002; Saunders *et al.* 2000).

The research design was executed to add value to both the financial industry as well as the discipline of eLearning.

1.10. The value of the research

The **intended consequence** of the study was to identify the leverage point that would ensure that eLearning could noticeably contribute to business performance.

Several **unintended consequences** enriched the value of the study.

- It provided a different perspective for defining the **contribution of eLearning** to business results.
- It allowed for the execution of **problem solving** from an alternative view point – Systems Thinking.
- It provided an optional **research methodology** and **analysis technique** that could be generalised as a qualitative research approach.
- It allowed for the growth in understanding of the **value of a leverage point** for Business within the systemic approach.

The research was executed within a specific time frame.

1.11. The research timetable

The total study was conducted over a period of twenty-four months. The preparation and closure phases represented the bulk of the time spent conducting the research study. The study was executed during June – July 2003. Table 1.4 shows the milestones and actions in this project and the relevant end dates.

Table 1.4: Milestones, actions and end dates

Milestone	Actions	End date
1. Preparation for data collection	Design of the study	February 2003
	Contracting of the relevant people	April 2003
	Design of the focus groups	May 2003
	Design of the interview	June 2003
	Design of the observation	June 2003
	Design of the surveys	June 2003
2. Execution of data collection	Execution of the interviews	June 2003
	Execution of the focus groups	July 2003
	Execution of the verifying sessions	July 2003
	Consolidation of the data from the Focus Group Day 1 for an integrated **Digraph**.	Mid July 2003
	Consolidation of the data from the Focus Group Day 2 for an integrated **systems dynamic model**.	October 2003
3. Closure actions	Electronic survey sent out	August 2003
	Target population analysis	October 2003
4. Data-analysis	Report on the data per research question	January 2004
5. Closure	Comparison of research findings to literature research, focusing on recurring messages and differences. Writing of the research report.	August 2004

The construction of the research report including the results of the study was done in a specific way.

1.12. Overview of the research report

In this chapter the current problem regarding the recognition of the ability of eLearning to contribute to business performance was discussed. It further outlined the research approach and design and provided a summary overview of the sample participating in the study. The ethical considerations, quality of the research design and the value of the research were also discussed.

The remainder of this research report consists of four chapters. Chapter 2 provides the **literature review**, Chapter 3 outlines the **research**

methodology, Chapter 4 tables the **research results** and Chapter 5 provides the **conclusions and recommendations** of the study.

The literature review in **Chapter 2** examines: 1) the external environment influencing Business and eLearning; 2) Business and eLearning as separate entities; and 3) eLearning contributing to business performance. Each of the three topics is discussed in terms of their concepts and terminology, theoretical foundations, policies and current practice. The literature review is expanded to include Systems Thinking due to the context that this it creates in the design of the research objectives and subsidiary questions.

Chapter 3 reviews the research methodology used during the research project. The chapter further provides an outline of Systems Thinking implemented during the execution of the study. The chapter concludes with a detailed description of the sample participating in the study.

Chapter 4 includes a detailed description of the results of the focus group sessions, the observations and the post focus group survey.

Chapter 5 concludes the research project in terms of comparing literature and the results of the study, providing research insights and suggesting topics for further research.

Chapter 2: Literature study

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2.1. Introduction

> *Man has long been concerned to come to grips with his environment and to understand the nature of the phenomena it presents to his senses*
> (Cohen & Manion, 1980:11).

It is important to take into account that the knowledge about the phenomena that Cohen and Manion (1980) refer to does not exist in a vacuum and that the new insights that the researcher creates only has value when seen in context of existing explicit knowledge (Jankowicz, 1995). The **aim of the literature study** was therefore to explore current knowledge with regards to the phenomena with the intended consequence being to:

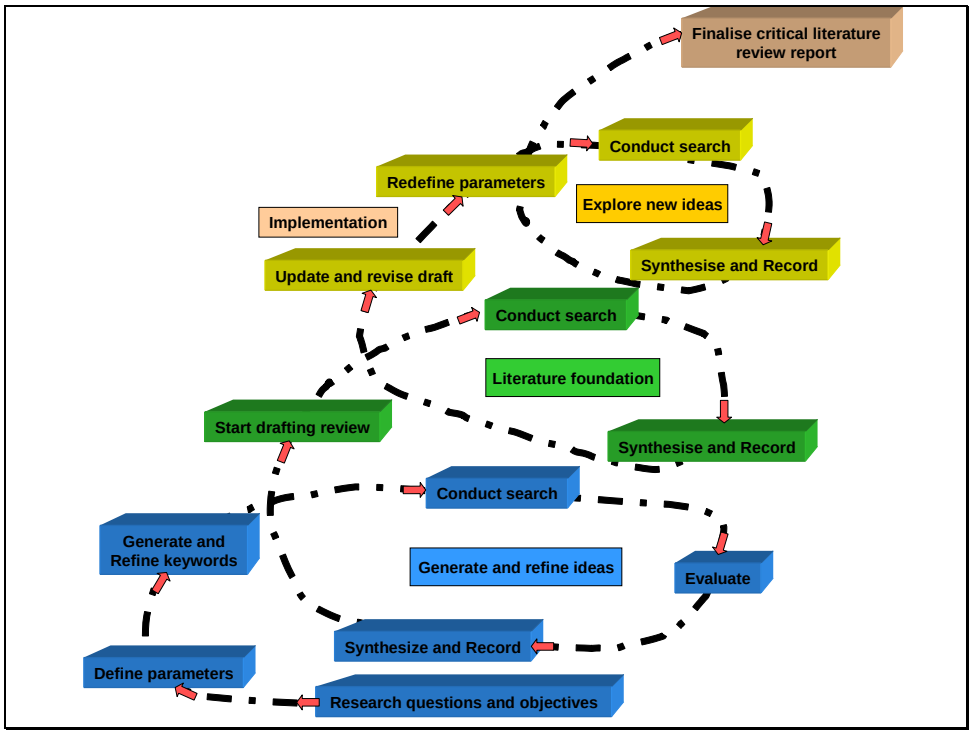
- demonstrate the researcher's current state of knowledge; and
- determine ultimately how the findings of this research study are the same or different from other knowledge sources (Saunders *et al.* 2000).

In order to realise the aim of this chapter, a formalised literature review process was followed.

2.2. The literature review process

A literature review was carried out firstly to **generate and refine** the research ideas. Secondly, a critical review of the literature was conducted to examine the **foundation** upon which the literature was built (Saunders *et al.* 2000). After the implementation of the research process (defined in Chapter 3), the researcher returned to the literature review to **explore concepts and ideas** introduced during the implementation phase of the research project. Figure 2.1 illustrates the literature review process applied during this research project.

Figure 2.1: Literature review process



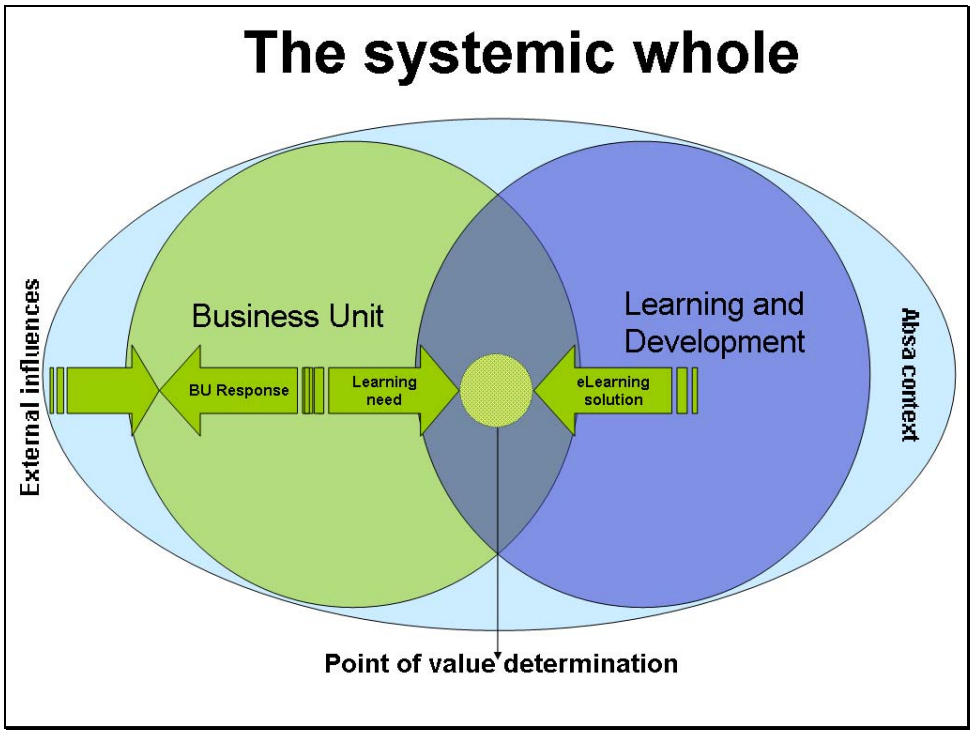
Adapted from Saunders *et al.* (2000).

The following **principles** were adhered to during the review of the literature:

- A funnel approach was used to widely review literature **before narrowing** down to the issues related to the study. To this extent, the general trends in the changing **world of work**, **business performance** and **eLearning** were examined. The review then narrowed down to the phenomenon at hand – eLearning contributing to business performance. A further detailed review of Systems Thinking (which represents the theoretical framework of the study)

was carried out. The literature review relates clearly to the research question and objectives. Figure 2.2 illustrates the boundaries of the literature review.

Figure 2.2: Boundaries of the literature study



- Key literature was covered taking into account recognised **expert opinions** in each of the fields of eLearning, business performance and Systems Thinking. The **criteria** used for filtering literature was the:
    1. relevance of the article within the defined boundaries of the study;
    2. date of publication of the article;
    3. additional perspectives on the intellectual puzzle (Mason, 2002) that the study was painting; and
    4. the representation of different angles of a specific topic at hand (Saunders *et al.* 2000).
- From an ethical point of view all literature was referenced and the researcher attempted to objectively reflect the content of other people's work (Saunders *et al.* 2000).
- At the end of each section, the **significant implications for this study** were briefly summarised.

The literature sources used in this study were obtained from three categories of sources (Saunders *et al.* 2000):

1. **Primary sources**: Reports, theses, emails, conference reports, company reports and government publications.
2. **Secondary sources**: Books, journals and the Internet.
3. **Tertiary sources**: Abstracts, encyclopaedias, bibliographies and citation indexes.

The literature review process provided the researcher with a guided pathway to follow during literature review. The literature review starts with a reflection on the theoretical construct of the title provides insight and a general understanding of the main concepts relevant in this study.

2.3. Theoretical construct of the title

Using a leverage point to improve business performance through eLearning

Each concept captured within the title will be discussed below.

'Identifying a **leverage point** …'
A leverage point (or points) presents a place to pursue business goals in a way that **takes advantage of**, instead of working against, the **systemic structures that support them** (Senge *et al.* 1994). In this study the leverage point is also seen as the **starting point of the systemic story** (Conversation with Christa Swart on 19 April 2004). The leverage point should however not be seen as a sole answer or in isolation. It should only be interpreted in context of the systems dynamic model.

'… to **improve** …'
Contributing to a positive influence, or taking advantage of (Senge *et al.* 1994). The improvement in this study is seen in the context of a total system. While the leverage point is seen as the co-producer with the most influence on the systemic model, it is not seen as the sole contributor to the improvement.

'… **business performance** …'

Business performance is about setting a company's strategic goals and then tracking the progress towards meeting the goals (Becker, Huselid & Ulrich, 2001; Mayo,1997; Porter, 2001; Whitting, 2004). In Absa the balanced scorecard, based on the model of Kaplan and Norton (1996), is utilised to define strategic goals and measure business performance from four perspectives:

1. Financial;
2. Customer;
3. Internal Business Processes; and
4. Learning and Growth.

'… through **eLearning**'.

Rosenberg (2001:28) refers to eLearning as:

> *… the use of Internet technologies to deliver a broad array of solutions to enhance knowledge and performance*.

eLearning within the **Absa context** is defined as a style of **distributed learning** that includes digital courseware. It is experienced through a technology interface **and** is net-enabled. The technologies that underlie this are predominately:

- **Internet** (global in nature and includes communication with multiple stakeholders); and
- **Intranet** (internal communications leveraging the corporate technology infrastructure) (Korpel, 2002).

The theoretical construct of the title further defined the **boundaries for the literature** research of this study. The first section of the literature study explores the **external influences** in the business environment which create the need for learning to contribute to business results. The second section focuses on **business performance**: what it means, how it is expressed, and the challenges that are a reality in the field of business performance. This

section concludes with the **assumption that eLearning** is one of the solutions that Business[1] is looking towards to improve performance.

The third section explores **eLearning**, what it is and how its value is articulated. The advantages and disadvantages of eLearning are debated and the 'return on investment' debate is framed.

The fourth section focuses on the combination of **eLearning and business performance** in an attempt to understand how theory and practice describes the overlay between the two disciplines. The 'return on investment' debate is explored further to determine how it is measured and how relevant it is in ensuring that eLearning contributes to business performance. At this point the **research problem is defined**.

In the fifth section, the researcher debates the **design of the inquiry system** for the problem at hand. The different options for the inquiry design are discussed and systemic thinking is motivated as the theoretical framework for the study.

The external influences on organisations representing the reality of the bigger world that organisations have to exist in, is a discussion on the first part of the context that is seen within the specified boundaries.

2.4. External influences – a changing world of work

> *If the 1980s were about quality and the 1990s were about re-engineering, then the 2000s will be about velocity. About how quickly the nature of business will change* (Gates, 1999:1).

In today's new economy and changing world of work, corporations are increasingly facing new challenges (Gates, 1999; Handy, 2001; Porter, 2001;

[1] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – operational management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

Thinq, n.d.; Ward & Griffiths, 1996; Weill & Broadbent, 1998). Examples of the major trends in the changing world of work are listed below.

- Integration and globalisation, with increased competition and maturing markets and growth in the services sector.
- Rapid growth in information and communication technologies and innovative solutions for the challenges in this field.
- Changing management structures – organisations are becoming flatter, smaller and leaner, including new forms of work such as telework, self-employment, subcontracting or temporary employment.
- Ageing workforce and shrinking corporate resources.
- Increasing work-pace and workload, requiring new qualifications and increasing participation of women in the workforce (Corporate Leadership Council, 2001a; European Agency for Safety and Health at Work, 2003; Thinq, n.d.).

Gates (1999), Handy (2001) and Porter (2001) report similar trends of change in the new economy with focus on the **rate of change** and the **innovative capability of people** to cope with change.

In addition, corporations are driven by the demand to **show short term results** no matter what circumstances exist (Thinq, n.d.; Weill & Broadbent, 1998). Firms also often have difficulty in understanding how their enterprises should react to external economic conditions. This creates frustration with business planning and performance management processes (Sribar & Van Decker, 2003). According to Gilman (2002) another huge challenge is the **execution of business strategy**. The reason for this is the inability of business to align the individual and departmental objectives with the overall strategy of the organisation (Gilman, 2002).

Countries and organisations have to change rapidly to accommodate the demands of the **Internet economy** in order to survive in a world market-place that is increasingly competitive. Countries must educate their citizens, business must train their workers and educational institutions must offer innovative programs (Cisco, 2002b:1; Gates, 1999; Parikh & Verma, 2002; Sribar & Van Decker, 2003; Van Decker, 2003).

> *To succeed in today's global Internet-based economy, businesses, governments, and educational institutions must assimilate large amounts of information* (KPMG consulting, 2001:2).

According to Van Diggelen and Du Plessis (2003:2), South Africa presents a "fascinating dichotomy of First World business operating in a Third World developing country." This highlights **additional challenges for businesses** in the South African market, for example, managing a first class business with a third class workforce, or training employees with technology when there is still a mammoth illiteracy issue (Van Diggelen, & Du Plessis, 2003).

The rate of change, the continuous rapid creation of new information, and the continuous demand for new skills, imply that organisations are faced with **significant learning challenges**, for example, retraining qualified workers, delivering just-in-time training to a globally dispersed workforce, accommodating ongoing demographic changes and to reduce gaps in employee skills sets. Furthermore organisations need to provide employees with **flexible access to life-long learning opportunities** (Cisco, 2002a; Gates, 1999; KPMG consulting, 2001; Parikh & Verma, 2002; Weill & Broadbent, 1998). Employees also express the need to continuously master new skills, owning the accountability to renew their skills to gear them for the future (KPMG consulting, 2001).

Absa as a financial institution is also faced with similar challenges, creating the urgency to adopt electronic business mechanisms. Thus, Absa embarked on an **eBusiness strategy** in 2000 (Absa, 2001). The strategy aimed to position **Absa as a market leader** in the e-space, dominating the minds and market in Internet banking. The domination would be achieved through the provision of convenient, high-performance and **value adding electronic services to customers**. The eBusiness strategy included focus on Business-to-Customer (B2C), Business-to-Business (B2B) and **Business-to-Employee** (B2E) (Absa, 2001).

Organisations **face these modern day challenges and requirements in different ways**. New strategies, technologies, process engineering, **learning**, people, organisational redesign and operating model changes are all attempts to survive the requirements of the new economy (Gates, 1999;

Porter, 2001; Van Diggelen & Du Plessis, 2003; Voisey, Baty & Delany, 2002).

The implication for this study:
The world of work is rapidly changing. Although technology enables us to accommodate the speed, all individuals have to continuously renew their skills. This renewal also needs to happen at a rapid pace.

The current economic climate is driving increased executive attention on **business performance** management, putting this topic high upon the management agenda (Neely, 2000; Sribar & Van Decker, 2003). The concepts, theoretical foundations, research in, and practices with regards to business performance are discussed next.

2.5. Business performance

> *Business … has multiple objectives which include providing good value for its customers, offering a worthwhile job and opportunities for personal growth for its workers, investing in its future stream of products, respecting the needs of the local communities in which it operates and the environment in general … making sure of a proper return for its financiers* (Handy, 2001:28).

The performance of this business can be measured in both a **tangible and an intangible way**. The most commonly known tangible measures are the **financial statements** of the company. The financial statements are published and are easily accessible. The intangible assets such as brand value or employee brand are much more difficult to determine. There is a concern though, that the value of the intangibles fluctuates within short periods of time, while the financial statements are audited only once a year (Mathews, 2003).

Financial measurements or ratio's are used as very simple mechanisms to describe the performance of a business (TheFreeDictionary.com, 2004). The measures are designed to **support strategies** and to compare year-on-year **results** (Leahy, 2001; The FreeDictionary.com, 2004). These financial measures have evolved over decades, and continue to evolve. The measures have been tested in various scenarios (Smith, 2001a). However,

the comparison of performance cannot be done significantly using only one measure. Various categories of measures should be applied depending on the objective for measurement or tracking, for example performance, turnover, liquidity, valuation ratios, dividends, percentage growth, financial strength and assets (Dunn & Welling, 2003; Smith, 2001a; Symantec Corp, 2004; TheFreeDictionary.com, 2004).

Even though there are **many measures** used in an attempt to **articulate how business value is created**, Neely (2002) states that traditional management **systems are flawed**. Utilising the financial measures in **isolation**, can **lead to undesired behaviour** and **possibly destroy the value** of the organisation. Neely (2002) further explains that there should be a **combination of tangible and intangible**, of **financial and non-financial** performance data. The combination leads to superior business performance.

Companies are **acknowledging the intangibles** and are **investing large amounts** of time and effort in new methods of systems managing and measuring business performance that include the value of intangible assets (Neely, 2002; Smith, 2001b).

The intangible assets are specifically relevant to defining the **holistic value of business performance** (Neely, 2002; Leahy, 2000). Smith (2001a) states however that, in the light of **high quality defined financial** measures, the design of performance frameworks for non-financial measures seem **unattainable**.

Financial institutions like Absa focus mainly on measures such as return on equity, headline earnings, headline earnings per share, credit loss ratio and cost-to-income ratio (Cooper & Maree, 2003; Bosman, 2004).

Adams and Andersen Consulting (n.d.) suggest that in many organisations **confusion and uncertainty** exist with regards to business performance. This state of confusion is also described by Porter (2001) and Weill and Broadbent (1998). Adding to this confusion is the **paradox of the Internet benefit measurement** – while it makes business easier for clients and information freely available, it also makes it increasingly difficult to capture the benefits as profits (Porter, 2001).

The implication for this study:
Most business performance measures focus on tangible quantitative measures. In order to have a balanced holistic perspective of the organisation, the intangible measures should be taken into account in order to determine an integrated value.

Various theoretical frameworks inform the way business performance is evaluated.

2.5.1. Theoretical foundations of business performance

Business performance has evolved significantly over the last few years. Various frameworks and methodologies have been suggested as sole solutions to **understanding the measurement of business performance**. "Each framework purports to be unique" (Adams & Andersen Consulting, n.d.:2). However, each framework has its own strengths and weaknesses (Adams & Andersen Consulting, n.d.). Examples of frameworks and methodologies are the Balanced Scorecard, Business Excellence Model, Shareholder Value Add, Activity Based Costing, Cost of Quality, Competitive Benchmarking, Six Sigma, Economic Value Add or Value Based Measurement (Adams & Andersen Consulting, n.d.; Kaplan & Norton, 1992; Leahy, 2000; Smith, 2001a; Snyder, 2004).

Walters (n.d.) states that the problem with business performance frameworks is that they are simply just frameworks. The frameworks suggest some areas where measures of performance might be used, but **do not provide clear guidance as to how the right measures can be identified, introduced and ultimately exploited.**

However, Adams and Andersen Consulting (n.d.) state that **stakeholders and their requirements** are far more important in deriving success measures than strategy or performance frameworks. If the stakeholder requirements drive the performance framework, the performance measures will be designed to help the people executing the strategy to track if they are **moving towards their targeted destination**.

Currently, performance frameworks focus mostly on precise tangible measures (Kaplan & Norton, 1992; Smith, 2001a). Leahy (2000) however, suggests that there is a move away from detailed precise financial measurements towards more value-based measurements focusing on **how value is created** in the company. The value creation process linked to compensation incorporates employee performance evaluations.

The implication for this study

There are various frameworks that are used to measure and articulate business performance. The frameworks should be populated with data based on the requirements of the stakeholders owning the strategy.

Policies regarding business performance add another perspective on the topic of business performance.

2.5.2. Policies regarding business performance

Business results or performance is generally governed by a common set of accounting principles, standards and procedures, referred to as 'Generally Acceptable Accounting Principles' (GAAP). GAAP combines authoritative standards set by policy boards and the accepted way of practicing accounting. All financial statements have to be prepared using GAAP principles (Investopedia.com, 2004; Smith, 2001b).

However, the rate of change seems to have exceeded the flexibility of GAAP to adapt to business needs. Greater insight is needed into the cause-and-effect relationships between events and financial results. These cause-and-effect relations can be used to build common understanding between traditional accounting systems and non-financial measures resulting in the growth of business value (Smith, 2001b).

The implication for this study:

The governance of business performance is based on financial measures. However the understanding of the cause-and-effect relations between financial measures will assist in increasing the understanding of the aspects contributing to the growth of business value.

eLearning has the potential to contribute to meeting the requirements of the new world of work. Although not seen as a sole solution, the specific benefits of eLearning could allow an organisation to learn at the same pace as the rapidly changing world of work.

2.6. eLearning

John Chambers, president and CEO of Cisco Systems, states that (cited in Cisco, 2002b:1):

> *There are two fundamental equalizers in life - the Internet and education. eLearning eliminates the barriers of time and distance, creating universal learning on demand, opportunities for people, companies and countries*.

The micro computer was invented towards the end of the 1970s. This brought computing into homes and businesses and schools. The Plato Project represented one of the first computer-based instruction projects (Alessi & Trollip, 2001). Computer-Based Training (CBT) was dominated by the instructor providing linear, asynchronous and static content courses delivered mainly via CD-ROM. Large content libraries were touted with the primary benefits stated as lowering training costs by reducing travel, facilitation requirements and instructor expenses. Other benefits were consistent quality, twenty-four hour availability and better learning retention (Oakes, 2003).

In the 1990's the eLearning era began, starting with a debate about the size of the 'e'. As opposed to CBT on desktops, eLearning is enterprise focused and network-driven. It introduces technologies such as:

- Learning Management Systems (LMS);

- Learning Content Management Systems (LCMS); and
- Virtual classrooms (Oakes, 2003).

However, the content is still static, designed on the basis of the CBT era – the main benefits remaining the same as in the CBT era (Oakes, 2003). The primary problem seems to be stated aptly by Oakes (2003:65): "The **focus on cost reduction** has been one of the **biggest failings** in the eLearning industry as a whole". Business seems to ask: **We've already done the cost saving bit with CBT – so what's the point?** (Oakes, 2003).

eLearning is now moving towards a **productivity era** focusing on "value propositions, such as faster time to market, increased customer satisfaction, and improved readiness of the organisation" (Oakes, 2003:66). **Explicit content** is designed with short, just-in-time learning objectives that **support workplace performance**. Organisations are also starting to leverage off the tacit knowledge that comprises the majority of knowledge in businesses today – eLearning is **now** about connecting minds of people supporting the organisation to "move faster, share best practices, leverage experts and ultimately improve productivity" (Oakes, 2003:66).

The implication for this study:
While eLearning as a solution is promising impressive opportunities for people and companies, there are several challenges that must be faced to realise the potential.

In order to create a common understanding of the eLearning environment the concepts, terminology and definitions are discussed below.

2.6.1. Concepts, terminology and definitions

> *The process of eLearning is a series of operations that involve humans, computers, the Internet, and instructional material, and that produces the outputs to learners and the organisation* (TelliYamamoto, 2004:66).

Rosenberg (2001) **describes** three fundamental criteria for eLearning. eLearning is:

- **networked** and capable of **immediate storing**, retrieval, distribution and sharing of information and training;

- delivered to the end user via standard **computers** and **Internet** technologies; and
- focused on learning in a **broad spectrum**, extending beyond the traditional boundaries of training.

A wide variety of descriptions and definitions about eLearning exist in the industry. Depending on which perspective eLearning is defined from, it can include anything from blended learning to networked learning. Other descriptions used in the context of eLearning are web-based training/learning; Internet based training/learning; online training; knowledge management; interactive electronic technology or performance support tools (Carter, 2002; Einstadt & Vincent (1998); Hartley, 2004b; Rosenberg 2001; Rossett & Mohr, 2004).

Recurring messages are reflected in **eLearning definitions**. The recurring messages were summarised and are clustered around the **intent of eLearning**, **delivery strategies** and **mechanisms** and **accessibility**.(eLearning Alliance, 2003; Hartley, 2004b; Hartley, 2004c; Mayor 2001; NetTel@Africa, 2004; Rosenberg, 2001; Rossett & Mohr, 2004). The summary for each of the clusters are provided below.

- **The intent of eLearning**

  eLearning started as a result of the movement towards eBusiness. It has the intent of exploiting the technology of the World Wide Web (WWW), but is not restricted to the WWW. eLearning intends to improve and extend the reach and quality of learning through making information and knowledge accessible, and to help people learn new skills and prosper in an information society. This could lead to improved individual development and performance. In some cases, the intent of eLearning was referred to as learning being reinvented in a digital world. However, it includes much more than just eTraining – it is an overarching umbrella that includes aspects of education, information, communication, training, learning, knowledge management and performance management. The further intent of eLearning is to integrate education, training

and structured information with the focus on both formal and informal environments.

- **Delivery strategies (Through …)**
  eLearning is delivered through facilitating access to resources services, remote exchanges and collaboration. eLearning also facilitates the support of learners (through mentors and experts from a local and global community) and the provision of content and management of learning. eLearning should be designed and delivered based on sound learning principles.
- **Delivery mechanisms (By using …)**
  eLearning is delivered by computers through the Internet, the Web or the organisation's network (Intranet). Digital content can be delivered via CDs, cell phones, computers and the Internet. In some cases there were references to digital interactive television and the use of eLearning in combination with blended learning solutions.
- **Accessibility (When, where and whom …)**
  eLearning should be accessible whenever the learner needs the content in both an asynchronous or synchronous manner. eLearning can take place anywhere through remote access. It can also take place in various environments such as colleges, universities, at work, at home, the local library, or even shopping centres. Educators and learners alike, who want to learn, who have the required competence (technological literacy), and competencies (are inquisitive in nature - 'wanting to know' and self-motivated), can access eLearning.

From the summary it can be seen that eLearning, therefore, has the specific characteristics of **spanning distance, time and space** so that a learner can access any type of learning experience on demand (Rosenberg, 2001).

The following aspects are generally part of eLearning courses:

- **eLectures**: online lectures explaining the crucial concepts or techniques for students to apply in problem solving or discussions.

- **Discussion forums**: online interaction between course participants. The participants can initiate debates or post replies. The discussions can be synchronous or asynchronous.
- **Ask-an-expert**: an online course could have a subject matter expert who can respond to technical questions and stimulate debates.
- **Mentorship**: an online mentor is a professional in a particular subject matter area who provides specific answers to questions regarding the content of the course to individuals.
- **Local learning facilitator or tutor support**: a facilitator or coach that is available for face-to-face interaction when needed by the student.
- **Networked resources**: links to additional relevant reading material to enrich the learning experience of the online participants.
- **Structured group activities**: as part of the total learning process, off-line activities can be arranged to allow learners to interact with each other in a structured way, such as seminars, small group discussions or simulations and role plays.
- **Informal peer interaction**: peers interact informally in a face-to-face manner or online. This allows for informal learning to take place from a different perspective (Hartley, 2004b; NetTel@Africa, 2004; Rosenberg, 2001).

TelliYamamoto (2004) looks at eLearning from a process perspective and states that eLearning requires the following **inputs**:

- information;
- technical equipment;
- a preparatory team;
- teaching specialists; and
- demand for learning …

These inputs are needed in order to deliver the following **outputs**:

- product or service; and
- information or experience …

These outputs represent the **results** at the end of the **execution**.

eLearning in Absa is defined as networked learning that includes aspects such as eLectures, discussion forums, tutor support, coaching and peer interaction. The Absa eLearning environment is contained behind the Absa firewalls, utilizing the company Intranet infrastructure (Korpel, 2002).

The implication for this study:
eLearning represents a networked environment enabled by Internet-like technologies. Learners using this type of learning delivery should be technological literate and self-motivated. With eLearning a boundary-less world opens up to people who want to explore and learn more.

eLearning exists within the **learning world** and is **underpinned** by similar theoretical foundations.

2.6.2. Theoretical foundations of eLearning

eLearning underpins learning with technology. Technology though, can paradoxically both liberate and constrain learners. On the one side it allows the learner opportunities for expression and contribution. On the other hand we are limited to what technology can or cannot do (Heppell, 2000).

In order to **articulate the value of eLearning**, the benefits that eLearning can have for the different stakeholder groupings need to be explored. The Corporate Leadership Council (2001a) suggests three areas of categorisation of eLearning benefits:

1. cost saving factors;
2. performance improvement factors; and
3. competitive position factors.

The **benefits for the stakeholders** – the company, the learner and the customer – are defined for each of the three areas (Barbazette, 2004; Carter, 2002; Cisco, 2002a; Cisco, 2002b; Docent, 2003;

Forman, 1994; KPMG Consulting, 2001; Levy, 2004; Mayor, 2001; U.S. Department of Agriculture, 2002; Nucleus, 2001; Oakes, 2004; Rosenberg, 2001; Rossett and Mohr, 2004; Swanson, 2002a; Thinq, n.d.; Wick and Pollock, 2004).

- **Area One**: Cost saving factors. The factors that are measured in this area include: revenue impact, cost optimisation and company infrastructure, for example:

  Company benefits: Increased revenue, shorter time to product implementation, increased sales effectiveness, savings in instructor travel time, accommodation, printing, distribution and storing, and leveraging off the company technological infrastructure.

  Learner benefits: Improved performance resulting in potential increased earnings and reduced infrastructure to spend time away from home.

  Customer benefits: Growth in profit through better informed decision making and limiting erroneous investments resulting in loss of money or additional expenditure.

- **Area Two**: Performance improvement factors. The factors that are measured in this area include: retention and transfer of learning, for example:

  Company benefits: Consistently higher learning results can be achieved over traditional learning and increased employee retention.

  Learner benefits: Up to date competence to provide an enhanced customer experience, greater variety of information sources, enables employees to build communities of practice that sustain continuous learning, consistent quality of course content to all learners and improved knowledge retention.

  Customer benefits: Learning opportunities for customers, rapid adoption of new information.

- **Area Three**: Competitive position factors. The factors that are measured in this area include: change, empowerment and diversity, for example:

  Company benefits: Launch of business programs benefiting the customer faster.

> **Learner benefits**: Rapid adoption of new information to improve client service, and more motivated employees.
> **Customer benefits**: Increased client satisfaction, client is also up to date with rapidly changing business practices.

The benefit areas describe how **eLearning attempts to articulates its value** to other stakeholders. Although these benefits are theoretically seen as the way to articulate the value of eLearning, the **stakeholders** still have their **own interpretation** of the measures and there is not always alignment between the different interpretations. For example, **business** traditionally wants an impact on the bottom line[2] expressed in **Rands and cents** value. The **learner** wants to know, '**What's in it for me?**' and the **customer** wants **value for money** (Docent, 2003; Porter, 2001; Rosenberg, 2001).

However, expressing the **actual value of the effect of eLearning** in **business terms** proves to be difficult (Chen, 2001). This problem seems to be compounded by the difficulties inherited from the field of technology in proving its value. Wettemann (2003) states that although there are many frameworks for measurement of technology solutions, few companies are actually able to **precisely express the solution's value add to performance**. Wettemann (2003:2) found that companies based their technology decisions on:

> *Educated guesses, opinion-based research, end-user preference, industry hearsay, executive mandates, and worst of all, ROI[3] estimates provided by vendors*.

Wettemann (2003) further found that even if there was an attempt to define measures, **few companies actually did rigorous benefit or cost tracking**. This leads to a further **inability to express the real-world impact** that the technology solution implemented had on the organisation.

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[2] The term 'bottom line' is used in Absa as describing the end result of business i.e. the profit or loss that the business unit makes at the end of the day.

[3] ROI: Return On Investment

Malholtra (2000) indicates that there is a similar **disconnection** between technology expenditures and the firm's organisational performance in the context of knowledge management.

While organisations acknowledge the **value of learning, and eLearning,** through visible increases in budgets, they also have a **greater need to show accountability** for investments – they require **evidence** that training initiatives bring **tangible benefits** to the organisation (Hall & LeCavelier, 2000; Mathews, 2003; Parikh & Verma, 2002).

In order to understand the **actual value of eLearning** to its stakeholders – business, learners and customers – we need to understand **how to capture** the value.

One of the most acknowledged frameworks to measure learning is the **Kirkpatrick Model** (Stone & Watson, 1999). This model is also used in the eLearning environment. This model measures on four levels (Kirkpatrick, 1994; Human Performance Centre, 2002):

- **Level 1: Reaction** – What did the learners think of the training?
- **Level 2: Learning** – What did the learners learn?
- **Level 3: Behaviour** – Did the learner's behaviour change in the job environment?
- **Level 4: Results** – What changes in productivity and results are observed in the organisation?

According to the 2002 ASTD survey 78% of organisations measure **Level 1,** 32% measure on **Level 2,** 9% on **Level 3** and 6% measure the impact on **Level 4** (Saba, n.d.).

The Kirkpatrick Model has both supporters and detractors. The **supporters** believe that the Kirkpatrick Model is still holistically representative of everything that can be measured in a training intervention (Winfrey, n.d.; Stone & Watson, 1999).

Phillips (1991) however, added an additional perspective to the Kirkpatrick Model – **Return on Investment** (ROI) including a cost-benefit comparison. According to Wegenast (2002) the fifth level ROI is a useful model to **communicate benefits of training** to stakeholders. The addition of a fifth level measuring financial returns is also supported by Kurse (n.d).

ROI is a well known financial measure that can be applied in the broader evaluation framework. However, it provides only **one perspective** of the investment decision and does **not factor in risk or intangibles**. Three data points are needed to calculate the ROI:

1. time period, i.e. 1 year;
2. investment, i.e. software licences, maintenance costs or hardware costs; and
3. return, i.e. sum of costs savings and revenue enhancements gained from implementing the solution (Docent, 2003).

The ROI can be expressed as a **percentage, a ratio, or a time to break even** (Docent, 2003).

Docent (2003) states that ROI is specifically effective in:

- facilitating investment **prioritisation** through supporting investors to make comparisons between investments;
- allowing decision makers to focus on **intangible benefits separately**;
- setting investment screening thresholds;
- providing a **framework** of discipline for vendors and decision makers to ensure that the investment is financially sound; and
- enforcing insight into the **top and bottom line business impact** of the investment.

Kaufman, Keller and Watkins (1995) outline a model similar to that of Kirkpatrick, but use alternative descriptions. They also add a fifth level – **societal consequences**. On **Level 1** they look at a wider context,

defining input in conjunction with reaction. The **input** includes human, financial and physical resources.

One of the **detractors** of the Kirkpatrick Model, Islam (2004), states that the **paradigm of learning measurement** should be changed. In the Kirkpatrick Model, the training designer makes all the decisions, despite initial interviews, about the meaning of the training to the organisation. Islam (2004) further states that there is a supposition on the part of training professionals that:

- *training is exempt from rules that apply to other business processes; and*
- *there are some universal metrics that quantify the effectiveness of every training program.*

These two assumptions tend to **prove false**, as they do not necessarily include corporate goals, culture, audience type and the position of the process in the organisation (Islam, 2004). Islam (2004) postulates that the learning creator should:

- *understand the organisation's business, its business mode and how it makes money in the industry;*
- *speak the language of the business to gain credibility; and*
- *understand the balance sheet and how it relates to business success measures*.

Islam (2004) concludes that **critical business requirements, the voice of the customer and the voice of business should be taken into account when measuring the value of learning programs**.

The implication for this study:
eLearning represents an integration of learning and technology and theoretically represent various benefits to its stakeholders. The stakeholders invest in eLearning based on the benefits. However, they require evidence that their investment is addressing the critical business issues resulting in unproved business requirements.

The research into eLearning focuses on the research highlighting eLearning benefits, failures and challenge, measurement frameworks and alternatives to eLearning solutions.

2.6.3. Research into eLearning

Research indicates that some of the unintended benefits of eLearning include:

- providing a richer environment of information sources;
- encouraging meaningful interaction between different stakeholders regarding the content at hand; and
- bringing people together over virtual boundaries to challenge, support or respond to each other (NetTel@Africa, 2004).

The United States Department of Agriculture (2002) implemented an eLearning pilot that sought to measure **three criteria**. The degree to which:

1. students take advantage of needed training;
2. report a positive experience regarding the ease of use of courses via eLearning; and
3. report that they benefit from learning.

Overall, the pilot met the criteria for success:

- sixty-six percent of the participants took the needed courses;
- students reported a **positive experience** to the extent that they would use eLearning again;
- various **benefits** were reported by both the students and the supervisors, i.e. using skills learnt on the job, including writing, computer skills, better communication and management skills; and
- additional benefits that were reported included the ability to schedule classes conveniently, consistent training for all, convenient locations and less travel time and more time to study, resulting in more thorough responses (United States Department of Agriculture, 2002).

Despite the advantages, **some of the participants were unable to complete the course**. Most of these students cited **busy schedules** and **lack of time** as reasons for not being able to complete the courses. A further reason was **computer-related problems** (United States Department of Agriculture, 2002).

Many training organisations discuss eLearning as a **solution to responding to business needs** (Pope, 2001; Knott & Bailey, 2001; Sanders, 2001). Pope (2001) further states that the eLearning environment was able to emerge due to the **convergence** of three specific elements:

- Demand for **skills to be transferred** in a time-and-cost-effective manner from individual learner and organisational point of view;
- Computer-based training market had **matured sufficiently** to have the necessary financial resources and innovation to address a new opportunity; and
- Technology (the Internet) had **evolved to a point** where it was available to a critical number of users due to cost-effective and user friendly access points (personal computers and browsers) (United States Department of Agriculture, 2002).

Opposing the alternative view on the emergence of eLearning, research conducted by the Corporate Leadership Council (2001a) finds that **accessibility, browser technology and download time** are **limitations** of eLearning. Learners needing **access to computers, Internet or Intranet** in order to participate in eLearning is also perceived as a **barrier to** eLearning (Corporate Leadership Council, 2001a; Ravet & Layte, 1997).

Pope (2001) states though, that the eLearning market has moved to a level of maturity making it **more attainable** and viable for organisations to implement. This is due to three **separate areas of expertise integrating** – content, learning management systems and consulting services (Pope, 2001). Due to advanced Internet technologies, eLearning content can be distributed relatively easily

across geographical, organisational and time boundaries. The matured eLearning environment provides the ability to create, access, and update training material from a single location and easily distribute it across the globe, essentially in real time (Fireman, 2002; Ravet & Layte, 1997).

However, even with the maturing eLearning technologies, the barrier to **access any type of technology-based learning**, including eLearning, is specifically relevant in the South African context where there are several areas without **access to water and electricity** – not to even mention **computers** (Technobrief, 2001). Where computers are provided to schools in rural areas, very little is achieved as the **teachers lack the technological skills** to teach the children. The teachers feel **daunted** by the technology and they are expected to **learn too many skills in too short a time** with little or no after support (Stones, 2003).

According to Mulama (2004) rural **Africa is yearning for Internet** and connectivity but, while there are various plans on the table to enable all people to be connected, most of the **communication infrastructure** in Africa is concentrated in urban areas, where only a handful of people live (Herselman, 2003; Mulama, 2004).

The visionaries of eLearning paint a more hopeful picture for eLearning (Pope, 2001). Technologies are moving towards an integrated platform, quality content is delivered seamlessly and is effectively implemented and tracked effortlessly. This results in organisations becoming learning enablers (Barron, 2002; Lavigne, 2003; Pope, 2001; Ravet & Layte, 1997). Fireman (2002:4) supports this by stating that:

> *eLearning is poised to become a ubiquitous element of all corporate training programs. More than ever the technological pieces of the puzzle are in place to ensure eLearning success.*

However, in terms of **browser technologies**, the current HTML[4] standards allow for **limited integration of content on different platforms**. This implies that companies are locked into a specific supplier. Even though open coding, AICC[5] and SCORM[6] compliance standards are on the table, this is **still a challenge and not quite yet a reality** (Cheese, 2003; Corporate Leadership Council, 2001a; Gordon, 2002; Shackelford, 2002). Gordon (2002) also states that the first major goal to be achieved is a reality of the **plug-and-play interoperability**.

Bandwidth restrictions may impede the download time of training material using animation, audio or video (Corporate Leadership Council, 2001a). This is a specific reality in the South African context where **bandwidth** is not generally available and is monopolised by Telkom. "Both the dial-up services and the digital leased lines offered by Telkom are **very expensive in comparison to those available in 'first world' countries**" (Zomerlust Systems Design, 2003). These high costs of South African bandwidth supplied by Telkom, South Africa's sole supplier, is also seen to impede market growth (Storm, 2003; Thomas, 2003). In terms of ADSL[7], an Internet access technology, there are data **download limitations and download speeds are not guaranteed**. Furthermore, these services are mainly available in the **urban** areas and **not** in the **rural areas** where education is needed (Loewen, 2001; Storm, 2003; Thomas, 2003; Weideman, 2004; Zomerlust Systems Design, 2003).

Bandwidth for learning in Absa is also an issue. Firstly, the total bandwidth is governed by Telkom and secondly, the **bandwidth is prioritised within Absa**. Priority is given to **business transactions**. Thus a very small percentage of bandwidth is allocated to eLearning (Conversation with Karin Hamman, Manager: Shared Systems, 23 March 2004).

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[4] HTML: Hyper Text Mark-up Language

[5] AICC: Aviation Industry CBT (Computer Based Training) Committee

[6] SCORM: Shareable Content Object Reference Model

[7] ADSL: Asymmetric Digital Subscriber Line

According to Permalink (2003), there have been three generations of eLearning, each making vast promises and each failing so far, to meet expectations. The reasons for categorising **the first generation** of eLearning as a failure are listed below.

- eLearning solutions concentrated on the **how** rather than the why – the **technology was more exciting** than the contribution to business performance. Not enough attention was paid to **economics**. There was a lack of understanding of where eLearning could add value, the scale of economics and the costs involved.
- The definitions of eLearning as a learning strategy were too narrow, stating that the **content could just be put online**, giving no attention to the overall learning experience. Existing training programs, based on different learning strategies to that of the philosophy of eLearning, such instructor lead training in a classroom, were **put behind glass**.
- The learner was not taken into account, the instructional designers did not adhere to **adult learning principles** and so the learners did not come. **Integration** was lacking from an organisational, learner and content point of view. eLearning was seen as a **point solution** with no integrated outcome.
- eLearning was implemented **without change management** (Permalink, 2003).

The **second generation** of eLearning looks very much like the first. There is some movement in creating learner experience (back to adult learning principles), blended learning and the realisation that it is about people – the learner. However, eLearning was **still failing** to deliver on the organisational contribution promise.

The **third generation** of eLearning sees the focus moving to execution – **focusing on doing** and making the promise real (Permalink, 2003). Mayfield (2001) states that today the eLearning market continues to grow but at a much slower pace.

Driscoll (2002) finds that the 'generation one' mistakes can still be seen. "**Death by overhead** refers to the experience in which learners are subjected to one-way information dumps … referred to as training" (Driscoll, 2002:1). This **death by overhead has also gone online** turning virtual classrooms and asynchronous self-paced programs into electronic overhead page-turners, the excuse being that trainers are busy, it is faster to make slides than to design eLearning and it is a familiar format (Driscoll, 2002).

So, the problems common to bad overheads in classrooms have been transferred to the online eLearning environment and are being compounded by technological constraints of the WWW. Illegible and too many slides, irrelevant animation and an overall lack of design contribute to the '**Virtual overhead death**' - contributing ultimately to the eLearning death (Driscoll, 2002).

Metacourse (2001) states too many eLearning vendors are **delivering courses rather than building sustainable learning communities** with the ability to construct their own knowledge and skills. In addition, the eLearning courses stress the **memorising of facts**, testing with multiple choice questions, rather than having learners acquire their new knowledge and skills as part of **collaborative online projects**.

Contrary to the benefit of eLearning – any-time-anywhere – research shows that training on a global scale is **slow to reap benefits, due to cultural and technological barriers** (Corporate Leadership Council, 2001a). The Corporate Leadership Council (2001a) further indicates that the **rate of growth in technology-based training** is slower than in 2000 due to **failures experienced** by companies.

> *Failure of … initiatives and reported poor return on investments (ROI) often stem from the lack of executive support and business strategy and poor design of communication*
> (Corporate Leadership Council, 2001a:13).

Technical skills are intuitively deemed to be more suitable than 'soft skills' for the eLearning environment (Corporate Leadership Council, 2001a). However, training providers want to take advantage of the benefits of the eLearning environment. The interest in the eLearning environment is shown in the growth of online 'soft skills' training (Corporate Leadership Council, 2001a).

The implication for this study:
While research shows eLearning to be **extremely beneficial**, it is complicated to implement, the **uptake is generally much slower** than expected, and it faces significant challenges in the South African context. Thus the promises **of eLearning benefits might take a while** to realise if it is viewed from the current perspective of financial measurements.

In the **current way of thinking about of measurement**, where non-financial measurements are not commonly acknowledged, eLearning is regularly put under pressure to prove a 'Return on Investment' (Corporate Leadership Council, 2001a). While vendors and eLearning supporters provide absolute proof of ROI, companies implementing eLearning have severe difficulties in reporting ROI because basic measures prior to implementing technology solutions were never calculated for comparison purposes (Corporate Leadership Council, 2001a). Chen (2001) reports a similar trend where supporters of eLearning and eLearning vendors claim various successes with regards to eLearning implementations (Chen, 2001).

As a result, Chen (2001) designed a framework that evaluates and **rates eLearning ROI success claims**. The framework is theoretically based on the combined measurement models of Kirkpatrick (1994) and Phillips (1991). The model is tailored to eLearning. A **low rating** indicates that eLearning as a solution has been implemented, but it does not measure the effectiveness of the implementation. A higher rating, **towards 5**, indicates demonstrable business impact (Chen, 2001). The rating descriptors are listed below.

1. User adoption of eLearning.

2. User learning or satisfaction.
3. Gross savings in cost or time.
4. ROI: Net cost savings.
5. Gross increases in revenues.

Additionally, just as with the move towards non-financial measures in business performance, companies should also look at the intangibles such as competitive position and customer satisfaction to determine the value of eLearning (Corporate Leadership Council, 2001a). According to Barron (2002), the key driver of the eLearning demand seemed to be cost savings. However, many companies seem to have realised that long term benefits such as, **increased productivity, improved employee retention or a more agile and competitive organisation**, is more important. Carter (2002) and Cisco (2002b) also state that the driver for eLearning programs are becoming more aligned with organisational goals and customer needs, rather than cost savings.

The implication for this study:
When moving away from the first generation eLearning benefits of cost savings, the expression of the eLearning value-add becomes more complex. However, there are many vendors and eLearning evangelists touting the value of eLearning to organisations. Chen (2001) provides an evaluation tool to differentiate between what is real and value-added.

According to Van Diggelen and Du Plessis (2003) almost everything has been 'e'-enabled in the last few years. Even the most human aspect – learning – has been touched by 'e'. Although eLearning has significantly advanced the learning theory, development and dissemination, Van Diggelen and Du Plessis (2003) feel that there is **still significant value in the change and learning principles pushed aside by technology.**

Play is traditionally seen as part of the world of children, but in the unique circumstances of South Africa, **play has become a strategy** to **bridge the gap in skills and requirements**. Industrial theatre is

uniquely applied in South Africa to **achieve business related goals**, influence mindsets, beliefs and behaviour patterns, and as a transformation mechanism to reduce resistance to change. Industrial theatre conveys complex issues in an entertaining and simplified matter (Van Diggelen & Du Plessis, 2003).

Challenges facing play as a learning strategy is that it is not **geographically tolerant** and that it is not a mass medium that can be used to influence great numbers of people **quickly**. The other problem is the relevance of a generic theme in a **culturally diverse nation**. It also does not provide people with necessary know-how and skills viewed as critical in the new world of work (Bryce Heath, 2000).

Another learning strategy under discussion in the theory and practice of adult education, informal education and life-long learning, is **experiential learning**. This term is used to describe two types of learning 1) a direct encounter with the phenomena being studied; and 2) education that occurs as a direct participation (Smith, 2004a).

Smith (2004a) however **highlights some problems** with experiential learning:

- experiential learning does not allow for a process of reflection;
- the model does not take different cultural experiences and conditions into account;
- learning is seen as a mechanistic step-by-step process contradictory to the reality of thinking;
- empirical support for the model is weak; and
- the relationship of learning process to knowledge is weak.

Cheese (2003) suggests that rather than looking at different learning strategies and media in isolation, a **mix of what is best for a learning experience** at any given time should be considered. Cheese (2003) defines **blended learning** as “a continuous process of job experience, knowledge gathering, guidance and counselling, with reinforcement and performance feedback”. Oakes and Green (2003:17) state that “… blended learning has been the **most overused buzzword** in the

learning industry over the past couple of years." In fact, training has been blended for years as, technically speaking, any combination of delivery methods is a blended learning solution. The line therefore between formal learning interventions and continuous learning experiences is becoming more and more blurred.

The Corporate Leadership Council (2001a) also indicates that classroom and technology training – including eLearning – should not be seen as mutually exclusive. Companies need to balance the two methods of training by combining the most appropriate medium with the most appropriate topic of learning.

> *The merging eLearning model blends online learning for information transfer and procedural skills training with classroom training for role-plays and face-to-face discussions* (Corporate Leadership Council, 2001a:10).

The implication for this study:
eLearning is **not the exclusive answer** to build organisational competence. The **aim of all learning** – eLearning, pLearning[8], bLearning[9], experiential learning – is to **align with organisational goals** to create **competent individuals** that will contribute to business performance. All learning strategies have weaknesses and strengths. In this study, the focus is on understanding the strengths and weaknesses of eLearning and how it aligns with business requirements.

Policies regarding eLearning add another perspective to the understanding of how eLearning contributes to business performance.

2.6.4. Policies regarding eLearning

The realisation of eLearning created **various unique policy issues.** The issues range from financing of courses to ownership of content (Edutools, 2004).

[8] pLearning: play learning

[9] bLearning: blended learning

In the **Netherlands**, eLearning is not documented in a separate policy. eLearning is referred to as part of the general educational policy. They specifically refer to eLearning in their 'Life-Long Learning' policy (Baak, 2003).

In the **United Kingdom (UK)** extensive research was done with various eLearning projects. These sometimes maverick projects illustrated their worth by allowing the educational sector to seize specific opportunities (Heppell, 2000). In order to move the educational policy to adopt the lessons learnt from these innovative projects, better measures of educational progress were needed. These measures had to focus on three aspects:

1. keeping track of educational progress;
2. allowing people to learn from the experience throughout the process rather than just experiencing the end results; and
3. allowing creativity to be valued above predictability. This allowed for different learners using different ways to reach the same results (Heppell, 2000).

Finally Heppell (2000) suggests that the UK should update their technology infrastructure more aggressively and continuously in order to ensure an innovative learning environment, as technology continually advances.

In **America**, eLearning policies are directly addressed and grouped around the following areas:

- funding;
- intellectual property;
- quality assurance;
- transfer and articulation; and
- tuition and fees (Edutools, 2004a).

Funding specifically includes issues such as:

- financing eLearning courses and programs;

- debating the accountability of the upfront eLearning infrastructure costs;
- distributing of funds to the sponsoring unit; and
- funding formulas of the state (Edutools, 2004b).

Edutools (2004c) defines **intellectual property** as:

> *Any product of the human intellect that is unique and novel and has some monetary value in the market place.*

Intellectual property is traditionally protected in the market place through mechanisms such as copyrights, patents and trademarks. These mechanisms allow the intellectual property-owner to decide who may access and use their property. It further protects their property from abuse and illegal application (Edutools, 2004c).

Traditionally, the **content or property owned** by a person has very set boundaries, for example, a book, inventions or software programs. The eLearning environment allows for more diverse learning environments where learners create their own courses and participate in online collaborative discussions. If an institute decides to resell some of the content to another institution, they are suddenly faced with questions of content ownership (Edutools, 2004c).

Quality assurance ensures high performance and academic rigor. It can include benchmarks, continuous improvement and adherence to quality standards (Edutools, 2004d).

> *Quality assurance in eLearning has been of paramount concern for institutions nation wide* (Edutools, 2004d).

Quality assurance policies provide guidance to new eLearning programs. They also serve as an evaluation of quality control tools for current courses. The quality assurance process includes standards on how courses can be evaluated and how new programs can be approved. It determines how the students learning is measured, how the learning is accredited, or the course structured. **Quality**

assurance further ensures that the eLearning environment represents as good a challenge as the classroom environment (Edutools, 2004d).

The policy cluster area for **transfer and circulation** focus on creating a common understanding about credits for courses between institutions. The cluster area also looks at where the talent is offered and how the students' knowledge is accessed for admission purposes (Edutools, 2004e).

The policy area **tuition and fees** represent decisions and standards around what institutions charge for online courses and what services the payment include when dealing in the online environment (Edutools, 2004f).

In **South Africa**, the quality standards of content and qualifications are protected by the South African Qualifications Authority (SAQA). SAQA prescribes the requirements for the inclusion of content for specific levels of learning (SAQA, 2004). The quality standards are focused on content rather than eLearning as a delivery mechanism (SAQA, 2004).

The implication for this study:
eLearning stakeholders world wide face similar policy issues. The eLearning **maturity** in a specific environment seems to influence how much attention is given to specific eLearning policies versus inclusion of eLearning in general learning strategies. The typical areas that are influenced by policy can be summarised as **financial, content, quality, intellectual property and costing models** for eLearning courses. However, in the quest to articulate eLearning value to business, one must be careful not to overstep the policy boundaries, for example selling content that was created as part of learner dialogue.

eLearning is adopted as a learning medium world wide with various levels of success. The current practice including successes, challenges and lessons learnt, is discussed next.

2.6.5. Current practice with regards to eLearning

> *Sometimes the space between adoption and denial is measured in decades, sometimes in months. What is clear is that between those two phases lies opportunity. It is that space in which real progress is made and where we find the relatively few organisations exploring eLearning, developing the concept in a rapid and arguably submersive way* (Heppell, 2000).

Thus, Heppel (2002) implies that we need to learn from our mistakes in order to explore and improve what we know about eLearning.

Case studies and companies reveal **various problems and challenges with the implementation of eLearning** (Carter, 2002; Coné and Robinson, 2001; Fireman, 2002; HRD Group Ltd (UK), 2003; Osberg, 2004; Tanquist, 2001).

Implementers of eLearning **assume that the uptake of eLearning** will automatically happen. This assumption leads to **unrealistic expectations** and, ultimately disappointment when the uptake levels among employees fall below expectations. The slow uptake baffles

senior management and eLearning champions alike (Carter, 2002; HRD Group Ltd (UK), 2003; Osberg, 2004; Tanquist, 2001).

One of the reasons is that people **resist any change** – even positive change – for many reasons. In some cases, learners view **eLearning as a threat** that will take away their traditional classroom or instructor-led options. In these traditional environments, the learner is allowed to be a passive participant. With eLearning, the learners have to be personally accountable, reaching out to take hold of their own future – this requires much more effort (HRD Group Ltd (UK), 2003; Tanquist, 2001, ASTD and The MASIE Centre, n.d.).

Lack of **motivation of employees** to take advantage of eLearning materials also seems to be a common problem (Fireman, 2002). eLearning implementers fail to understand learners, to invest in people, and to continuously follow up through providing a social support network (HRD Group Ltd (UK), 2003; Carter, 2002). The initial enthusiasm fades quickly, specifically if there is inadequate support in the eLearning environment, or if the reality falls short of the created expectations (Tanquist, 2001).

Companies implement eLearning **without a thorough understanding of the user group** and the learning culture (Tanquist, 2001). Mindsets of company managers hinder the effective implementation of eLearning as they see it as being less effective than traditional classroom training. Managers do not understand or value the integrated approach of using both classroom training and eLearning as a blended solution (Fireman, 2002). Managers can also hinder the process by not allowing employees to experience learning outside their field of work (Carter, 2002). However, in some cases, a poorly designed assessment process does more damage than good if it creates incorrect or supports the wrong assumptions (Tanquist, 2001).

People may also resist eLearning due to a seeming ‘lack of social interaction’. They perceive the environment as cold and impersonal. The flexibility of eLearning cited as an advantage by management is seen by some people as another infringement by the company on their

personal time. The **human resources department might also see eLearning as a threat as they are traditionally accountable for training and development** (Tanquist, 2001).

Failure to **understand the eLearning medium** and the subsequent **technology infrastructure requirements**, for example, bandwidth and a solid network infrastructure in order to scale across large enterprises, can lead to costly mistakes or redundant infrastructure (Fireman, 2002; HRD Group Ltd (UK), 2003; Mayor, 2001). **Software issues**, such as the lack of interoperability between applications (Fireman, 2002) and failure to **integrate** with existing learning and administrative systems, also presents a challenge (HRD Group Ltd (UK), 2003). Market leaders are in the process of **creating standards**; however, individual tools do not always integrate (Fireman, 2002). Many organisations have a distributed training model, while **eLearning requires a centralised, more comprehensive** system and resources (Fireman, 2002).

In some cases the **eLearning solution fails to meet with business needs** (HRD Group Ltd (UK), 2003). This includes the integration of the eLearning environment with the working environment. If this is not done, it leads to a lack of momentum and sustainability of the eLearning programme. It also decreases the transfer of learning to the work environment (Coné & Robinson, 2001; Wick & Pollock, 2004). This problem is further impacted through the difficulty in ascertaining the hard cost and revenue impact to produce credible ROI (Docent, 2003).

Misconceptions of eLearning are one of the major reasons for employees not taking up eLearning. Even if a rigorous communication and marketing strategy is followed, the **message does not always reach the audience**. This could be due to too much hype and oversell from vendors or underselling to the employees about how they can personally benefit from eLearning. This misconception is also enhanced by the, sometimes incorrect, assumption that employees in different disciplines, levels and departments in an

organisation would have the same need and commitment towards the eLearning implementation. This assumption leads to a **blanket approach** being used for eLearning implementation (Carter, 2002).

Poorly designed eLearning that reflects text that was simply put online, is another problem. None of the benefits of eLearning are used and in such cases limited learning occurs. On-the-job performance change is also almost impossible (Coné & Robinson, 2001). Too many companies are 'delivering course materials' rather than cultivating knowledge building communities. This also reflects in the assessment strategies where companies stress the testing of memorisable knowledge with multiple choice questions, rather than letting the learner construct new knowledge and skills as part of a collaborative project (Metacourse, 2001).

The Corporate Leadership Council (2001c) states that eLearning is in some **cases not effective when learners show discomfort with technology**. The legacy of traditional corporate training leads to lack of high level management support and trainers fearing that they will become obsolete as a result of eLearning. In another Corporate Leadership Council report (2002), the ownership that adult learners take for their own learning is also listed as a challenge for the successful implementation of eLearning.

The lessons learnt from eLearning failure inform **strategies for successful implementation of eLearning**. The strategies touch on:

- **people change** enablement (Carter, 2002; Hartley, 2004b; Osberg, 2004; Tanquist, 2001);
- **limited roll-out** strategies (Carter, 2002; Tanquist, 2001);
- alignment with **business objectives** (Coné & Robinson, 2001; Carter, 2002; Corporate Leadership Council, 2001b; Gilman, 2002; Osberg, 2004; Tanquist, 2001); and
- **adaptable eLearning** content (Carter, 2002).

Unisys used various marketing approaches to the different stakeholders ensuring that all people get the **same message** from a

variety of sources on different levels. Every individual coming on board is one step closer to creating the necessary critical mass ensuring the success of eLearning (Carter, 2002). **Cartmore Investment** adopted a more needs-based strategy providing eLearning, where appropriate, as a best solution on a project to project basis. This allowed for the acknowledgement that not all subjects can be covered by eLearning from the outset. The limited roll-out strategy allowed Cartmore to manage **learner expectations** at a more practical level (Carter, 2002).

Nige Howard (cited by Carter, 2002) believes that the **starting point of everything** you do should be aligned with what the business wants to achieve. Howard also suggests that the **role of the human resources personnel should be re-contracted with them in that eLearning does not replace the traditional training role, but rather changes it to online coaching**. In terms of measures, Hall and LeCavalier (2000) found that potential implementers of eLearning should first determine **what managers want in terms of metrics** before they invest a great deal in metrics.

Critical success factors represent **the current leverage points** on which experts advise **eLearning adopters** to **focus**. Various role-players suggest **critical success factors** that will contribute to the success of eLearning initiatives (Fireman, 2002; Carter, 2002; Coné & Robinson, 2001; Corporate Leadership Council, 2001a; Swanson, 2001b; Tanquist, 2001; The HRD Group Ltd (UK), 2003; United States Department of Agriculture, 2002).

Company leaders should be involved in the eLearning initiative to the extent where they also use the tools provided. Swanson (2001b:1) cites Brian Corbett, Air Canada's director of eLearning and knowledge management: "Without executive sponsorship, any project will be lost in the priority list." This concept of ownership is supported by Fireman (2002) and The HRD Group Ltd (UK) (2003).

eLearning should be presented as an **integrated part of the company learning strategy** delivering on the company objectives. eLearning should be incorporated in the total human resources development process, for example, integration into the performance assessment, training needs analysis and personal development plans. Further to this, eLearning should be blended with other training resources, learning methods and corporate learning programs. eLearning should be blended with other learning programs for their mutual reinforcement. The integration of eLearning into organisational processes is a key factor that should also be considered (Fireman, 2002; Carter, 2002; Swanson, 2001b).

eLearning is only **one valuable component** in the human resources toolbox and the processes that lie beneath. It is **unlikely that eLearning on its own can realise a responsive learning organisation**. Fitting eLearning into an organisation's overall business learning, change and development strategy is of critical value. Without this, eLearning becomes an expensive curiosity and potentially an expensive failure (Fireman, 2002; The HRD Group Ltd (UK), 2003).

eLearning in Absa represents **only one of the learning** delivery mechanisms. The delivery mechanisms are integrated at a central point, offering one solution to all business units. It aligns closely with the organisational eBusiness strategy (Absa, 2001).

All employees should have the **necessary equipment, tools, knowledge and skills to leverage the eLearning environment**. eLearning is not only a cheap, fast substitute for face-to-face training. The benefits and limitations that technology brings to learning should be clearly understood and incorporated into the learning design. A solid network foundation is necessary to support a comprehensive application framework, enabling efficient management of complex eLearning programs (Fireman, 2002; The HRD Group Ltd (UK), 2003).

In Absa, **technology is one of the most challenging limitations** that eLearning can face. Only about **33% of the Absa target population has direct access** to eLearning on a personal computer. Employees in the Absa branches have to share a computer or have no computer with Internet capability. The shared computers are usually on the branch manager's desk which hampers the accessibility of the computer. These computers are older models and are therefore also slow and clumsy to operate. An extensive roll-out strategy has been put in place to upgrade all infrastructures in Absa and 'Internet-enable' all employees. It is, however, a costly exercise that will only be completed in 2006 (Conversation with Harry van Staden, Absa Project Manager of the technology enablement project on 12 February, 2004; Conversation with Bev Judd, manager Learning and Development: Design and Development on 15 April, 2004).

The **culture change** should foster a climate that **encourages and supports learning**. A culture should be developed where co-workers support learners during their training time by answering their phones and emails and diverting interruptions. Management commonly **overestimates short-term expectations and underestimates the time and cost needed before the benefits of eLearning can really be obtained**. The return on investment from eLearning comes through an **integrated successful approach** and **not** only from the successful implementation of an **eLearning system** (The HRD Group Ltd (UK), 2003).

Lastly, eLearning should flow from and **be driven by the organisation's business strategy**. eLearning must also be monitored and measured. If an organisation does not deal effectively with human resources processes, **eLearning won't solve it – it will either force a quantum leap or bring chaos** (The HRD Group Ltd (UK), 2003). Fireman (2002) also promotes the creation of protocols and metrics to help assess progress and the value of eLearning initiatives.

The implication for this study:

Lessons have been learnt on different aspects of eLearning, for example people change, failing business requirements, misconceptions of eLearning and poorly designed eLearning. These lessons learnt provide valuable input to future eLearning applications ensuring continuous quality improvement and in some cases prompt us to question our own beliefs and assumptions regarding eLearning.

Furthermore, the lessons learnt regarding **eLearning** and case study successes inform the success strategies advised for eLearning implementations. **Critical success factors** on which eLearning adopters focus on are executive involvement and ownership, integrated eLearning, stable technology infrastructure, cultural change and focused measurement aligned with company objectives. These critical success factors **create focus points** and therefore represent the current **theoretical leverage points**.

eLearning in itself cannot realise benefits without business. Thus, the interrelationship between eLearning and business needs to be explored with focus on how eLearning is measured in business context.

2.7. eLearning improving business performance

2.7.1. Research into eLearning improving business performance

Organisations are increasingly acknowledging people as key to corporate performance and the creation of sustainable strategic advantage. Yet, many still question the **value that specific people management strategies add** to the organisation (Saba, 2001; Voisey, Baty & Delany, 2002). According to Wick and Pollock (2004) learning will only result in **business performance if the learning is transferred and applied in the workplace**. The effectiveness of the learning transfer will then **directly impact on the required measurable** results.

eLearning, based on Internet technologies, is an ideal tool to assist employees in **gaining a competitive advantage in the marketplace**

(KPMG Consulting, 2001; Parikh & Verma, 2002). KPMG Consulting (2001) claims that by aligning learning needs with technological advances, organisations **can obtain significant results through aligning the organisation around its strategic objectives**. This can be done through delivering live or on-demand rich learning content, quickly re-skilling and updating employees and deploying content to widely dispersed audiences at greater speed than traditional approaches, showing substantial cost savings.

Bowers (2003) provides a **different view**, stating that world class organisations are led by people who know that "**measurables such as profit, productivity and customer satisfaction, are the outcome of staff performance, not the cause of it.**" And, the **way to get employees to meet with the business goals is through better leadership and coaching** (Bowers, 2003).

> *Best performing organisations are seeking to understand economics of their own learning initiatives and to leverage that understanding to create the efficiencies and effectiveness that are the hallmark of market leaders* (Saba, 2001:1).

Business owners are therefore aiming to **measure learning results in the same context as business results** and to quantify the return on investment of implementing learning solutions in a **language that is understandable by all participants** (Saba, 2001). Thinq (n.d.) also concurs that the measurement of the ROI of training programs will demonstrate the **value of eLearning in business terms**.

The implication for this study:
Thus, the **responsibility for creating value** from learning lies with the **organisational leadership** and not only with the **training or learning** departments. A **common framework** for the articulation of value and the implementation of the learning solution is required, i.e. what is the leverage point that will improve business performance through eLearning?

However, Wick and Pollock (2004:50) state that **measurement is relative** "… the most persuasive measures depend on the audience and their goals for the program."

McLemore (1996) suggests some strategies to enhance the finance department's image as a valuable business partner. These strategies also seem relevant to the eLearning and business performance environment. Some of the best practices include:

- reporting based on **diverse client requirements**;
- having **online access** to **one place of consolidated data** for managers;
- **automatic identification** of trends and exceptions; and
- reports and commentaries addressing the **future actions** instead of explaining the history.

This type of reporting **becomes critical** when trying to align organisational or divisional requirements with the solutions provided by a learning department. In Absa, this type of reporting for eLearning is urgently required. The current reporting represents mostly historical data, which in most cases cannot even be explained. There is no focus on trends; and diversity of client requests, with regards to reporting, cannot be accommodated (Conversation with Basadifeela Letsoalo, Manager of the Absa People Management Information Management Department, 15 March 2004).

According to Hartley (2004a), learning analytic tools can be used to support the **determination of the learning contribution to business performance**. If implemented correctly, the data is accurate, reliable and current. SAP[10] and People Soft are examples of the tools that can be used to do the analysis of learning data. These tools can be integrated into the business processes of finance, human resources

[10] SAP is a system that allows users to gain powerful tools for self-services, analytics, financials, human capital management, operations and corporate services (SAP.com, 2004). The Human Resources module of SAP has been implemented in Absa. This module tracks the people management products for example, appointments, organisational structure and training statistics.

and business. The data retrieved from these systems should, however, be seen in context of business results as the data in isolation will not provide the necessary links to prove a valuable contribution (Hartley, 2004a).

In Absa the SAP system has been deployed and is destined to be used for the analysis of learning data. This is proving to be a challenge as the data currency on the system is dependant on the ownership of line management to update the relevant learning data. This ownership of learning data is a general struggle in Absa, frequently resulting in incorrect information dissemination (Conversation with Gayle Piek, Head Learning and Development, Absa People Management on 3 August 2004).

According to Voisey *et al.* (2002), one clear area for **improvement is the tracking of relevant metrics**. Given the strategic importance of proving value to the organisation and accounting for investment in people, it is a "deficiency that needs correcting in many organisations" (Voisey *et al.* 2002:5). Gilman (2002) states that the **lack of metrics linking learning activities to business outcomes** makes it difficult to ensure that eLearning contributes to business results. Furthermore, a lot of learning and skills creation happen between people through **collaboration in different communities** who are **not part of formal training**, and therefore **not formally reported** (Gilman, 2004).

Hall and LeCavalier (2000) further state that few companies collect data on exactly how eLearning contributes to business performance. This seems to be due to the complexity of formally assessing eLearning effectiveness at the job performance level. They suggest however, that job performance would be the most effective way to evaluate learning in context of business performance. Berk (2004) also states that the largest gap currently is in conducting the job, business impact and ROI analysis. However, "These are the items that matter most to stakeholders" (Berk, 2004:36).

The implication for this study:

Measurement is relative to the context in which it is applied. Measurement of eLearning and the articulation of its value to business are complicated due to reasons such as:

- **measurements not linked** to outcomes;
- difficulty in defining and measuring the **actual outcome**; or
- the action of learning is **not part of a formal process** and can therefore cannot be tracked.

Despite these difficulties, stakeholders still require an explanation of their investment.

The research towards business performance improvement through eLearning provides a valuable base from which to work. However, there are valuable lessons to be learnt from practice.

2.7.2. Current practices with regards to eLearning improving business performance

Many learning organisations are evolving into pragmatic and business-driven entities. As a result, learning organisations enable more access to upper levels and across a wider range of boundaries in the organisation (Hartley, 2004a). According to Gilman (2002) eLearning aided many of the world's leading organisations in dealing with the enablement of organisational effectiveness.

Hartley (2004a) states that he is concerned about measuring learning in terms of training effectiveness …

> *I hope that one day, the term learning analytics goes away and everyone in organisations will be using business analytics and business measurements to describe the effectiveness of learning interventions* (Hartley, 2004a:20).

Some companies have taken up the challenge to prove the alignment between business performance and eLearning. Examples of the benchmark companies include AstraZeneca, IBM, Cisco, Air Canada, Du Pont, John Deere, Ford, JP Morgan Chase, Hewlett-Packard and the Harvard Business School (Cisco, 2002a; Hall & LeCavalier, 2000;

Harvard Business School Publishing, 2002; KPMG Consulting, 2001; Nucleus, 2001; Wick & Pollock, 2004).

The objectives of the eLearning initiatives ranged from **leadership development** in IBM (Cisco, 2002a) to **practical hands on** training in Johan Deere (Swanson, 2001a). The Harvard Business School addressed the **soft skills challenge**, training managers on **interpersonal communication** skills via eLearning (Harvard Business School Publishing, 2002). AstraZeneca created a **coaching culture** through eLearning (Wick & Pollock, 2004).

Examples of the **types of measures** that were used in these benchmarked studies are:

- Return on Investment (ROI);
- Payback period (years);
- Net Present Value (NPV);
- average yearly cost of ownership;
- savings on instructor time, travel time and accommodation;
- increased customer satisfaction; and
- Improvement in business results (Galahan, 2002; Hall and LeCavalier, 2000; Nucleus, 2001; Swanson, 2001a).

These measures are as much focused on revenue creation and productivity as cost savings. It indicates that the measures are therefore becoming more balanced. However, even though the measures are looking wider than cost savings, they are **still focused on financial measures** and non-financial measures are visibly absent.

Examples of the **benefits reported** in the benchmark studies are listed below:

- Cisco, who saved an excess of $100 000 per year in instructor time, countless hours of the course participants' time and 40% - 60% in training costs.
- IBM, who reported benefits on direct savings such as reduced travel and reduced cost of content deployment and indirect benefits from increased manager productivity. They also

reported that in the long term, managers could make sustained behaviour changes that lead to **significant business performance improvements**.

- John Deere, who reported a significant increase in customer satisfaction (Cisco, 2002a; KPMG Consulting, 2001; Nucleus, 2001; Swanson, 2001a; Wick & Pollock, 2004).

From the **case studies** it can be seen that the most successful eLearning initiatives had the following attributes:

- focused on solving a specific business problem;
- measures for the specific problem were defined upfront and reported on afterwards. Both direct and indirect measures were used;
- specific content was matched to a targeted audience;
- eLearning alternated training to be an ongoing process instead of a once-off process; and
- care taken to ensure that the results are there (Cisco, 2002a; KPMG Consulting, 2001; Nucleus, 2001; Swanson, 2001a; Wick & Pollock, 2004).

While the case studies documented in the literature illustrated the possibility of measuring contribution to business performance, the case studies seemed like **once off silo** projects, as there was limited evidence that similar measures were used and tracked on all other learning programs in the relevant organisations. The measures seemed to **support the pattern** of business in terms of only reporting **financial items** and not necessarily addressing the value of human capital growth. (Hall & LeCavalier, 2000).

Berk (2004) reports a move in the learning industry towards **reasonable quantitative and qualitative measures**, as opposed to highly statistical measures. Given the time, money and effort it takes to design and implement precise measures, it seems as **if executives prefer less accurate but timeous measures to make decisions** (Berk, 2004).

The implication for this study:
eLearning has proved to contribute to business performance in several case studies. When comparing the case studies to the rest of the organisation, it seemed as if the measurement of the business performance contribution was isolated and that the discipline was not part of the holistic system of the case study companies. The measures were also mostly financially focused rather than balanced with non-financial measures.

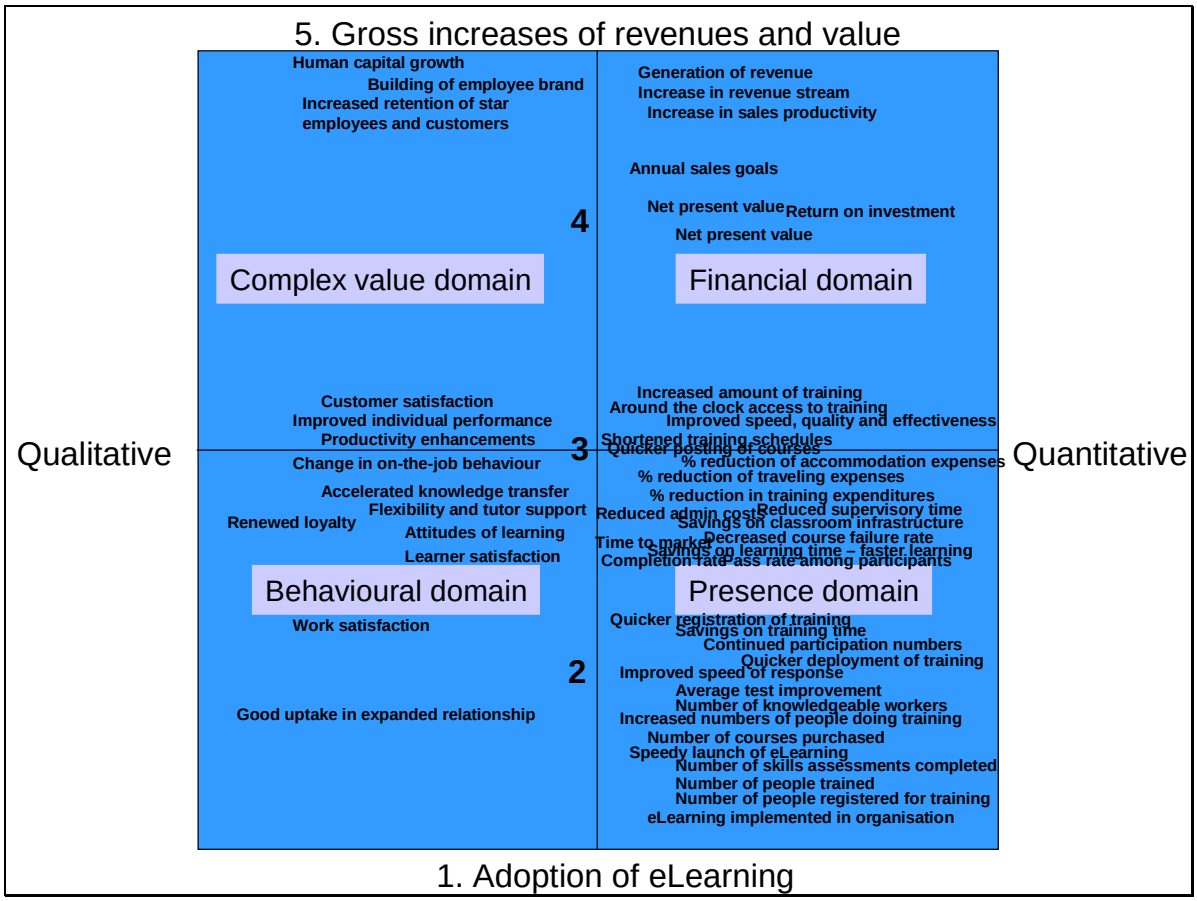
Various debates exist around business performance, how it articulates value and how eLearning potentially could deliver on this expected value. However, **there still seems to be an undefined gap that accurately articulates and directs the value creation of eLearning in business performance.** The question is how does the literature contribute to the intellectual puzzle of the point of value creation?

2.8. Point of value creation

The information in the literature mostly indicates that measuring the value that eLearning adds to business performance is a complex process that is not generally applied. However, investors in eLearning make a **definite request** that this **value should be unlocked and articulated**. Most of the solutions focus on quantitative solutions in the **less complex areas** (Barron, 2002; Berk, 2004; Hall & LeCavalier, 2000; Hartley, 2004; Kirkpatrick, 1994; Mathews, 2003; Sribar & Van Decker, 2003; Werner, 2003).

Figure 2.3 is a diagram representing a **collective view** of measurements that authors suggest to be implemented in order to prove the contribution of eLearning to business performance. The **x-axis** of the diagram represents the scale '**qualitative vs. quantitative**'. The **y-axis** of the diagram represents the **complexity of the measurement** implementation. This complexity categorisation is based on the framework designed by Chen (2001).

Figure 2.3: A representation of the collective view of eLearning measures



The '**Presence**' domain focuses on **quantitative** measures about the availability of eLearning, whether the learners are happy with it, and whether they have learnt something from it (Kirkpatrick, 1994). These types of measures could be implemented via 'smile sheets' or multiple choice questionnaires. From the 'Presence domain' on Figure 2.3, it can be seen that most measures implemented by companies in the literature fall in this domain.

The '**Financial**' domain represents **quantitative** measures about the bottom line of the company, i.e. whether there was a **quantifiable business impact**, on the increase in sales figures, or an ROI figure. While these measures are complex to measure, it represents the financial side of the scale not taking into account the non-financial measures. From Figure 2.3 it can be seen that this domain has fewer measures than the 'Presence' domain, and about the same number of measures as the 'Behavioural' domain.

The '**Behavioural**' domain represents **qualitative** measures on the acceptance of eLearning in the organisation, the attitude of learners towards eLearning and the displayed behavioural change on-the-job. From Figure 2.3 it can be seen that this domain has less measures than the 'Presence' domain, but more than the 'Complex Value' domain.

The '**Complex Value domain**' represents **qualitative** measures regarding the value that eLearning adds in the organisation, for example increase in human capital, employee brand or employee retention. These measures are complicated to describe and are **mostly part of a bigger systemic chain** of reactions. The difficulties in isolating measures contribute to the complexity of measurement in this domain. From Figure 2.3 it can be seen that this domain has the least measures. This is in line with literature where people feel secure when eLearning value is articulated in terms of financial results, but become less secure when non-financial values are added to the picture.

In order to **reduce the complexity of the 'complex value-add' domain** and to further the value-add of eLearning to business, the researcher proposes that a **leverage point**, is found. This **leverage point can be used to articulate and influence the contribution of eLearning to business performance**.

Therefore this research study will focus on the …

Identification of a leverage point that will enhance business performance through eLearning.

Due to increased investment in eLearning, business stakeholders require eLearning role-players to provide evidence of eLearning contribution to business performance (Berk, 2004; Cisco, 2002a; KPMG Consulting, 2001; Saba, 2001; Snyder, 2004; Thinq, n.d.; Wick & Pollock, 2004). The determination of eLearning contribution to business performance is **one of the top three issues affecting the learning industry** – "… the need for employees to produce demonstrable, strategic business results and show ROI in learning" (Saba, 2001:3). A similar sentiment is expressed by Daniel Peterson from GlaxcoSmithKline (cited in Wick & Pollock, 2004):

> *Electronic learning tools are changing and will continue to change the way we communicate and learn. Electronics technologies have already remoulded most businesses and human service activities into more productive, customer service oriented enterprises, and they are starting to become more critical to schools* (Salisbury, 1996:6).

These citations contribute to the argument that a leverage point is needed.

However, these electronic learning tools have **only showed the promised benefits when they were implemented as part of a bigger system** (Salisbury, 1996). "Automating the old processes produces little, if any, positive effect" (Salisbury, 1996:6). This is why instructional technology (or, in this study, eLearning) must be viewed as part of a larger strategy that includes a total system (Salisbury, 1996), i.e. eLearning improving business performance.

Based on the fact that there is an absence of eLearning links to business performance in the qualitative-complex domain (as shown in Figure 2.3), the researcher suggests that the problem should be **approached from an alternative perspective**, i.e. the problem should be studied in context of the holistic system or systemic point of view. McLagan (2004) states that even though there are isolated case studies showing links between business performance and eLearning, there is **no information on cause and effect**.

Systems Thinking allows the researcher and participants access to individual and collective behaviour **embedded in a natural world** where they live and interact – and therefore in the context where the measurement will be implemented. The ability to access **realistic scenarios** makes the Systems Thinking approach ideal to access the behaviour embedded in the **Absa world of business and eLearning**. Systems Thinking as a research approach will be motivated as a research philosophy in Chapter 3. However, the Systems Thinking approach also contains specific activities that **influenced the design of the research objectives**. The concepts, theory

and application of Systems Thinking will therefore be discussed briefly in order to **create context** for the **research objectives** and **subsidiary questions**.

2.9. Systems Thinking

Problems can be solved from many perspectives. Problems can be seen as **bounded** – specific contained and isolated variables – and **unbounded** – variables seen as part of a bigger system and cannot be isolated or contained (Strumpher, 2001). Traditionally most problems were viewed from a **mechanistic** or bounded point of view, discounting the systemic relationships of variables (Anstett & Swenson, n.d.; Banathy, n.d.; Strumpher, 2001; Tanji & Kielen, 2003).

The **mechanistic approach** to problem solving is specifically relevant in situations such as science or mechanical engineering. A set of clearly defined variables can be manipulated as part of an experiment and the behaviour of the variables can be tracked (Anstett & Swenson, n.d.; Strumpher, 2001; Wells, 2003).

However, the traditional way of problem solving is in some cases limited when dealing with **recurrent, complex or novel** problems. The turbulent 1990's required problem solvers to think differently about how they solved problems, and to find new ways of understanding problems, while avoiding the pitfalls of traditional thinking (Anstett & Swenson, n.d.; Aronson, 1996; Banathy, n.d.; Frey, 2003; Tanji & Kielen, 2003).

Thus, in all research projects there are complexities regarding **how the research is conducted** and, in particular "… how the framing of the research reconciles the conflicting priorities of the production of research findings that transcend the immediate context of the research while also being conducted in ways that are consonant …" with the principles and guidelines of the phenomenon at hand (Wiliam,2000:1).

Churchman (1971) distinguishes between five types of inquiry systems. These are the Leibnizian, Lockean, Kantian, Hegelian and Singerian Inquiry Systems. The **Leibnizian Inquiry** System focuses on the logical relations between the elements (Churchman, 1971). This inquiry system is closed with

a "set of built-in axioms that are used along with formal logic to generate more general fact nets of tautologies" (Courtney, Croasdale & Paradice, 1998:1). The primary source of evidence is **rationality and reason** (Wiliam, 2000).

Lockean Inquiry Systems are experimental and consensual. The empirical information is gathered from external observations. This information is then used to build a representation of the world. The primary source of evidence for the Lockean Inquiry System is **empirical observation** (Churchman, 1971; Courtney *et al.* 1998; Wiliam, 2000).

The **Kantian Inquiry** System is a mixture of the Leibnizian and Lockean inquiries combining theoretical and empirical components (Courtney *et al.* 1998). Wiliam (2000) states that this inquiry system is specifically relevant as those with "… different theories will observe different things in the same setting, but are the result of the interaction between the brute physical world and the theories held by observers".

The **Hegelian Inquiry** System attempts to do theory building by reconciling two or more rival theories through the development of mutually inconsistent theories (Wiliam, 2000). Churchman (1971:177) summarises the differences between the Lockean, Kantian and Hegelian inquiry systems as:

> *The Lockean inquirer displays the 'fundamental' data that all experts agree are accurate and relevant, and then builds a consistent story out of these. The Kantian inquirer displays the same story from different points of view, emphasising thereby that what is put into the story by the internal mode of representation is not given from the outside. But the Hegelian inquirer, using the same data, tells two stories, one supporting the most prominent policy on one side, the other supporting the most promising story on the other side*.

The fifth inquiry system – **Syngerian Inquiry** – focuses on inquiry from a systemic point of view, questioning assumptions and beliefs that a system embodies. There is no solid foundation. Instead of focusing on what '**is**', the inquiry moves towards '**what ought to be'** (Churchman, 1971; Wiliam, 2000).

In this study the focus is on what **'ought to be', based on the assumptions and beliefs of the participant in the 'system' (study)**. Due to the required sensitivity to 'meaning' from the stakeholders' point of view, it seemed as if there was a greater overlap between the requirements of the study and the Singerian Inquiry rather that the more factual 'is' inquiry systems. Systems thinking is based on the Syngerian Inquiry (Landman, 2000; Strumpher, 2001).

Senge *et al.* (1994) state that in order for organisations to gain and maintain a competitive edge, they need to go though a **continuous process of renewal,** and therefore have a **learning capability**. One of the ways for organisations to continuously learn is to view the organisation as an inquiry system, i.e. "**systems whose actions result in the creation of knowledge**" (Courtney *et al.* 1998; Landman, 2000; Strumpher, 2001). According to Courtney *et al.* (1998),

> *Learning occurs by improving actions through better knowledge and understanding, encoding inferences from history into routines that guide behaviour, and develop insights, knowledge, and associations between part actions, the effectiveness of those actions and the future actions*.

In order to learn more about the research question (and problem) a systemic inquiry was designed (Courtney *et al.* 1998; Kurti, n.d.). In the **systemic inquiry**, a wide range of approaches, methods, and tools are available from which to select, based on the type of system, the purpose and nature of the inquiry and the specific phenomenon at hand (Banathy, n.d.; Senge *et al.* 1994).

2.9.1. Concepts, terminology and definitions of Systems Thinking

Systems Thinking can be seen as a powerful **universal language** changing the ordinary way we think and converse about **complex issues**. In this section, the focus is on creating **shared meaning**

regarding the concepts, terminology and definitions of Systems Thinking. The shared understanding will allow readers to have a **greater participation** in feelings and thought throughout this study (Innovation Associates, Inc., 1996; Maloi, 2002; Salisbury, 1996; Senge *et al.* 1994; System Dynamics Society, 2002).

Salisbury (1996:23) defines **Systems Thinking** as:

> *… the **way we think** about a **problem**; the way we understand the world; the way we characterise and describe a problem. To apply Systems Thinking to a problem means that we think about the problem as a **system**.*

Senge *et al.* (1994) add that Systems Thinking consists of a set of tools, methods and principles that can all be used to **discover and articulate** the interrelatedness of forces within a system. Innovation Associates, Inc. (1996:2-6) provides the following perspective about Systems Thinking:

> *… developing the capacity for **putting pieces together** and seeing the **wholes**.*

A **system** can be defined as a perceived 'whole' consisting of a group of parts or components working together and influencing each other as a functional unit over time. The parts work together according to a specific plan and towards a common goal (Innovation Associates, Inc., 1996; Salisbury, 1996; Senge *et al.* 1994).

The **structure** of the system is dependent on how the researcher and the participants in the research 'construct' the system from their point of view. **Systemic structures** are often seen as **invisible until people point them out**. The structure represents a **pattern of interrelated relations** among the elements of a system. It includes various perspectives such as hierarchy process flows, attributes and

perception, and the quality of products (Innovation Associates, Inc., 1996; Salisbury, 1996; Senge *et al.* 1994).

Systemic describes the way that the elements of a system interact with each other and with the larger system within which it exits. It describes the **interconnectedness** and complexity of the system and implies that if something is done to one part of the system it will initiate change in the **whole** system. No one part of a system can ever be **isolated** from the bigger whole (Salisbury, 1996; Senge *et al.* 1994).

All systems have **boundaries** that describe a **unique collectiveness** of the elements functioning in a systemic relationship. These boundaries become important when understanding how different systems influence each other (Salisbury, 1996; Senge *et al.* 1994; Tanji & Kielen, 2003).

Leverage in a systemic context can be seen as the concept where specific element/s of a system have a **large influence** on the holistic system by even the smallest action. This implies that change in the right place can lead to lasting and **significant improvement** (Salisbury, 1996). Senge *et al.* (1994) labels this type of inflection point as **a leverage point**.

Mental models can be described as the beliefs, assumptions and models that people have about themselves, others or their organisation in relation to the world (Innovation Associates, Inc., 1996). Mental models play an important role during a Systems Thinking process as they influence **how the individual sees** the underlying structure of a system. The mental models of individuals are enacted through the behaviour that the individuals display (Salisbury, 1996; Senge *et al.* 1994). Senge *et al.* (1994) also describe mental models as the **internal pictures** that we carry about the world that influence our actions and the decisions we make.

A **Systems Thinking Diagram** is a tool that supports us to see the underlying structures of events and patterns (Salisbury, 1996). The diagrams consist of the following:

- variables; and
- arrows (Strumpher, 2002; Salisbury, 1996; Senge *et al.* 1995).

The **arrows** are used to show **cause and effect relationships** among the variables. The Systems Thinking Diagram can also be called a "feedback loop diagram" or "causal loop diagram" (Innovation Associates, Inc., 1996; Senge *et al.* 1994). Gharajedaghi (2004:2) states that a "set of interdependent variables forms a circular relationship". The variables co-produce each other. The co-producers cannot be studied in isolation, but need to be approached holistically in order to understand how each variable is related to the others. These circular relations require an **iterative inquiry** (Gharajedaghi, 2004).

Strumpher (2001) utilises the causal relationships in the problem analysis to determine the driver problem. The resulting systems diagram is described as a **digraph**. The driver problem is therefore the leverage point in a system of problems. Removing this driver problem will influence the system the most.

The first premise of the Singerian Inquiry is the establishment of a **system of measures**. The measures can be transformed and compared, where appropriate. The **measure of performance** is the degree to which differences between the opinions of members in a group can be resolved by the designed measuring system. The Singerian Inquiry therefore provides the "capability to choose among a system of measures to create insight and build knowledge" (Courtney *et al.* 1998). The **system in focus (SIF)** describes the purpose of the system that 'ought to be' (Strumpher, 2001).

The implication for this study:
In order to define a **leverage point**, the **Systems Thinking Diagram** needs to be drawn. In order to define the Systems Thinking Diagram,

the **stakeholders**, **measures of performance** and the **co-producers** of the measures of performance need to be defined. The stakeholders are defined in terms of the **system in focus** and the system in focus is defined based on the **problem that needs to be solved**.

The field of Systems Thinking was founded in the theory of systems dynamics.

2.9.2. Theoretical foundations of Systems Thinking

J.W. Forrester initially articulated the field Systems Dynamics. He included three main interests based on System Dynamic Society:

- The Systems Dynamics National Model;
- Management Education; and
- System Dynamics as a methodology for giving cohesion, meaning and motivation (System Dynamics Society 2002).

In this study, the System Dynamics Methodology forsters the emergence of **cohesion, meaning and motivation for the value of eLearning to business**. This understanding of the value of eLearning to business will lead to the identification of a leverage point that will support the Absa Learning and Development Department to optimise the inter-dynamics of business and eLearning. This leverage point becomes very relevant in the new economy where, according to Gates (1999), business happens at the speed of thought.

Systems Thinking has gone through **three generations** of change from **operations research** to **cybernetics** to **interactive design**. This evolution was due to a response to challenges in the socio-cultural systems (Banathy, n.d.; Gharajedaghi, 2004). The **purposes** of Systems Thinking are to:

- discover the **systemic structure behind problems**, i.e. to understand the deeper structure of the problem in order to provide business the opportunity to influence events and patterns in their favour;
- tell compelling stories that describe how the system works;

- foster **team learning**; and
- identify higher leverage interventions (Innovation Associates, Inc., 1996; Salisbury, 1996; Senge *et al.* 1994).

Salisbury (1996) proposes that the following **characteristics** of a system be described in order to give meaning to the system:

- the **purpose of the system;**
- **performance measures** of the whole system;
- the system's environment –t the constraints within which the system operates;
- the resources of the system (time, money and people);
- the components of the system – their **activities, purposes** and measures of performance;
- the management of the system;
- the clients of the system; and
- the **stakeholders** of the system.

The implication for this study:

In this study the **systemic structure** behind a problem is **expressed** through the systemic thinking **diagram**. The diagram is created through understanding and capturing the stories told by learners and designers exposed to Absa eLearning. The purpose of the system is expressed in the '**system in focus**' statement. The performance measures are defined for specific stakeholders, clients and management of the system. Thus, the concepts and definitions, purposes, and characteristics of a system inform the **research objectives and subsidiary questions** to be asked.

Senge *et al.* (1994:91-92) lists **six aspects** that can be expected when practising Systems Thinking. These aspects guided the design of the Systems Thinking approach in this study. The aspects are listed below.

1. "There are no right answers". System dynamics illustrate the **interdependencies within a current system** from a specific point of view. Thus, if the point of view is changed, the resulting interdependencies will differ.
2. "An elephant cannot be divided in half". A system cannot be divided into loose standing parts. The **power lies in the collective** – in how the whole 'hangs' together.
3. "Cause and effect will not be closely related in time and space." **Leverage does not lie near to the symptoms of the problem**. The root cause must be identified, taking the unexpected into account.
4. "You will have your cake and eat it too – but not all at once." When looking at the whole system, the time delays between the cause and the effect should be taken into account. This will only become apparent when the system is continually examined over time.
5. "The easiest way out will lead back in." People want to work with the more obvious events and trends that are visible above the water line. Observing the events and trends however, do not change the deeper underling structure of beliefs and assumptions where the biggest amount of change and value lie. **Leveraging off these beliefs and assumptions will increase effective change.**
6. "Behaviour will grow worse before it grows better." Understanding the deeper structure of the system can lead to **members of the participating group to despair as it points out vulnerabilities, limited understanding and failures of the past**. It does, however, on the positive side, provide a platform for discussion between previously explosive parties. The awareness that there are possible solutions and that the different stakeholders can all participate in reaching this

positive status can lead to a sense of hope for effective change.

The implication for this study:
The behaviour of people directly influences the outcome of Systems Thinking. The behaviour of individuals indicates assumptions and beliefs of those specific individuals. In order to effectively change a process, these assumptions and beliefs must be understood. Furthermore, the viable conversations, created through applying Systems Thinking, create an environment where individuals can become aware that they do not have all the answers or that there are other possible solutions. This common understanding can then lead to energy and focus for more effective change.

Systems thinking is widely applied in the world for problem solving, dealing with complexity and re-creating the educational system.

2.9.3. Current practice with regards to Systems Thinking

Systems thinking is used in various **diverse disciplines**, from engineering and water drainage to education (Moloi, 2002; Salisbury, 1996; Senge *et al.* 1994; Tanji & Kielen). Senge *et al.* (1994) further state that Systems Thinking tools have put 'systems dynamic language' into the **hands of teams and on the walls of meeting rooms**, where they can energise organisational learning at all levels.

Moloi (2002) applied Systems Thinking in a **school environment** to show how a school can be seen as a learning organisation. Feedback loops supported the design of a story regarding how becoming a learning organisation would enhance the achievement of a school's goal. Moloi (2002) further states that Systems Thinking **allows people to learn about themselves** as individuals and in context of the organisation, helping them to see the **bigger picture**. Moloi (2002) sees Systems Thinking as a holistic tool that can enable learning processes, allowing a workforce to become more informed, knowledgeable, and critically thinking.

Finally, Moloi (2002:63) states that Systems Thinking allow us to become "**architects or builders of new systems that connect us spiritually to serve our learners better**."

The implication for this study:
In the context of the research focus – **identification of a leverage point that will enhance business performance through eLearning** – the framework of Systems Thinking leads the research towards a **process-based approach** (Roode, n.d.). The process-based approach directs the researcher to ask questions regarding **the driver problem** that prevents eLearning from improving business performance, the **systemic model** that represents the system in focus and the **leverage point/s** within the systems. Due to the susceptibility of the Systems Thinking approach to meaning and interpretation (Senge *et al.* 1994), focus should also be placed on the **behaviour of the individuals influencing the outcome** of the study.

Based on the explained concepts, research and practice of Systems Thinking, the **research objectives** and consequent **subsidiary questions** are:

- to identify the **driver problem** that prevents eLearning from improving business performance:
  - What are the problems related to improving business performance through eLearning?
  - How can the problems be grouped together as themes?
  - How do each of the themes influence one another?
  - What is the driver problem?
- to design the **systems dynamic model** that represents the driver problem:
  - What is the system in focus?
  - Who are the main stakeholders of the system in focus?
  - What are the measures of performance?
  - What are the co-producers for each of the measures of performance?
  - How can the elements of the system in focus be represented systemically?

- to identify the **leverage point** within the systems dynamic model.
  - Which of the co-producers influence the systems dynamic model the most?
- to reflect the **effect** of the **behaviour** of the individuals participating in the research process on the research inquiry.
  - How does the behaviour of the individuals participating in the research process influence the research inquiry?
  - What effect does the process have on the individuals participating in the research inquiry?

2.10. Summary

This chapter addresses the literature relevant to the study. It firstly focuses on the external environment and the changing world of work, highlighting the rate of change and the integration of technology into our daily lives. In the next section, business performance and eLearning are explored in order to scope and define the research problem. Both topics are explored from various angles, including the concepts and terminology, theoretical foundations and research, policies and current practice. From this, the research focus is narrowed to:

The identification of a leverage point that will enhance business performance through eLearning.

Systems Thinking is briefly debated as a problem solving methodology. The research objectives and subsidiary questions are then defined, based on the inherent process requirements of Systems Thinking.

Chapter 3: Research methodology

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3.1. Introduction

> *Researchers should be clear about what is the essence of their enquiry, and should express this as an '**intellectual puzzle'** with a clearly formulated set of research questions* (Mason, 2002:13).

In this chapter, the **essence of the research inquiry** is stated and an intellectual puzzle is built through the various research questions. The research problem is stated, the purpose and objectives of the study are defined, and the application of the research process to provide evidence for answering the research questions is described. The research philosophy, approach and strategy are defined. The methods and instruments used to gather data are defined and the subjects from whom information was elicited are described.

3.2. The research problem and motivation for the study

The **practical problem** (Mouton, 2002) that this study addresses is the misalignment between the views of the Learning and Development Department and Business[1] regarding the contribution or value-add of eLearning to business performance. While the Learning and Development Department believes that they are following world-class processes, they are constantly requested to justify how eLearning adds value to the business results.

The **core problem of the study** (Mouton, 2002) is to determine how the contribution of eLearning to business performance can be improved. This debate seems to be an industry issue where eLearning specialists are on a constant quest to provide evidence that they are adding value to business performance (ASTD, 2004; Phillips, 2004; Corporate Leadership Council, 2001c; Corporate Leadership Council, 2000; PrimeLearning, Inc., 2001 The study will therefore focus on the **creation of knowledge about how the contribution of eLearning to Business Performance can be improved.**.

In the process of knowledge creation, the study will focus on identifying the point of value creation between Business and an eLearning intervention. This **point of value creation** represents a shared space that is created between the learners, their management ad the Learning and Development Department so that these role-players can agree in advance on where and how an eLearning intervention must make a difference. They must therefore have a common understanding of exactly where the point of value creation is.

In this study, it is proposed that this **point of value creation** can be seen as a **leverage** point. Systems Thinking is suggested as an approach to attempt to delve deeper into the structure of the problem in order to uncover alternative structures, events, trends and patterns resulting in a focus or leverage point.

[1] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – Operational Management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

3.3. Systems Thinking

> *The significant problems we face cannot be solved at the same level of thinking we used when we created them*
> **Albert Einstein** (Cited by: Salisbury, 1996:17).

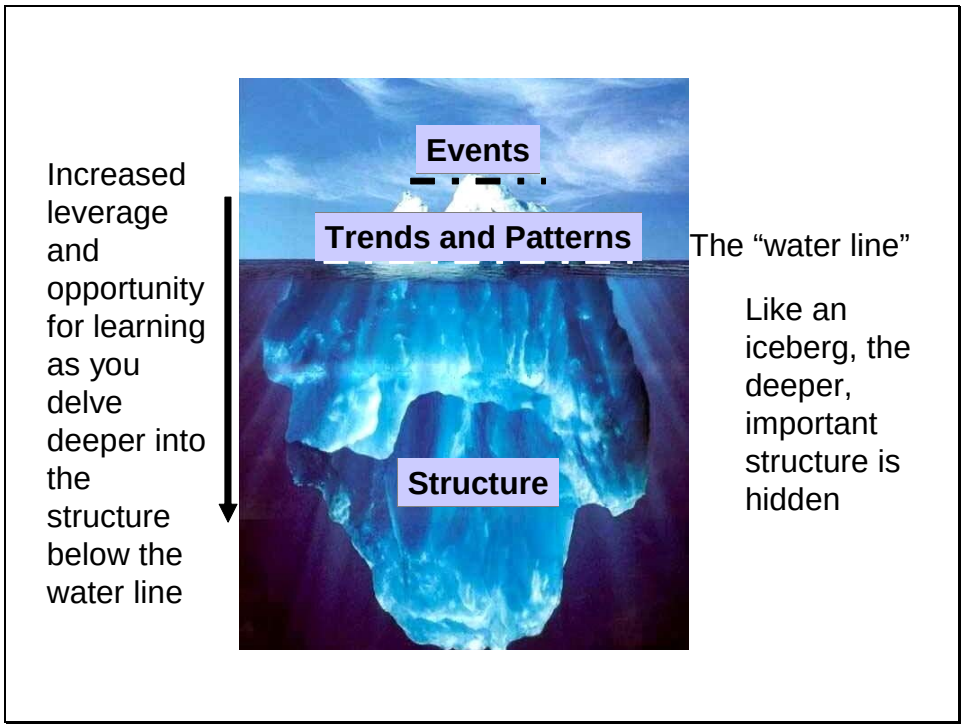
A problem that is difficult to solve in one worldview can be solved when looking at it from a **different worldview**. Systems Thinking brings with it its own assumptions and beliefs, and **colours the lens** of the researcher and the participants through which they view the world. Systems Thinking beliefs suggest that the world can be seen as a **holistic living organism** that cannot be broken down into parts (Wheatley, 2001; Salisbury, 1996). If, therefore, the deeper structure of the problem is understood, it will provide the opportunity to influence events and patterns in the favour of business.

> *A system is a perceived whole whose elements "hang together" because they continuously affect each other over time and operate towards a common purpose*
> (Senge *et al.* 2001:90).

The definition above is specifically relevant in this study as the researcher wants to understand how the different elements relevant in eLearning improving business performance hang together, and how they continuously affect each other over time, operating towards a common purpose.

According to Senge *et al.* (2001), Systems Thinking provides a mechanism that will enable a deeper understanding of a problem. The understanding goes beyond the events, trends and patterns 'seen as everyday behaviour', delving in beliefs and assumptions, driving the behaviour displayed in the everyday events. Strumpher (2001) confirms this by stating that Systems Thinking provides methods and tools that structure and support an inquiry as a learning process by directing and maintaining the conversation between participants. Figure 3.1 shows the difference in depth that Systems Thinking enables in the attempt to understand problems.

Figure 3.1: Systems Thinking

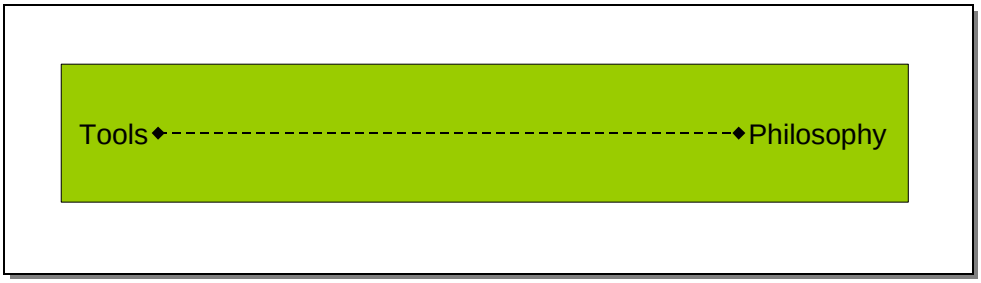


(Adapted from: Innovation Associates, Inc., 1996)

> *The discipline of Systems Thinking spans a continuum of skills and orientation. It is a set of tools and methods and a philosophical stance and framework* (Innovation Associates, Inc., 1996:2-3).

The above definition illustrates that Systems thinking is both a philosophy and a tool. Figure 3.2 graphically represents the continuum between the tools that are used and the framework (or philosophy) within which the tools are used.

Figure 3.2: A continuum between tools and philosophy



(Innovation Associates, Inc., 1996:2-3)

> *The human capacity to invent and create is universal. Ours is a living world of continuous creation and infinite variation* (Wheatley, 2001).

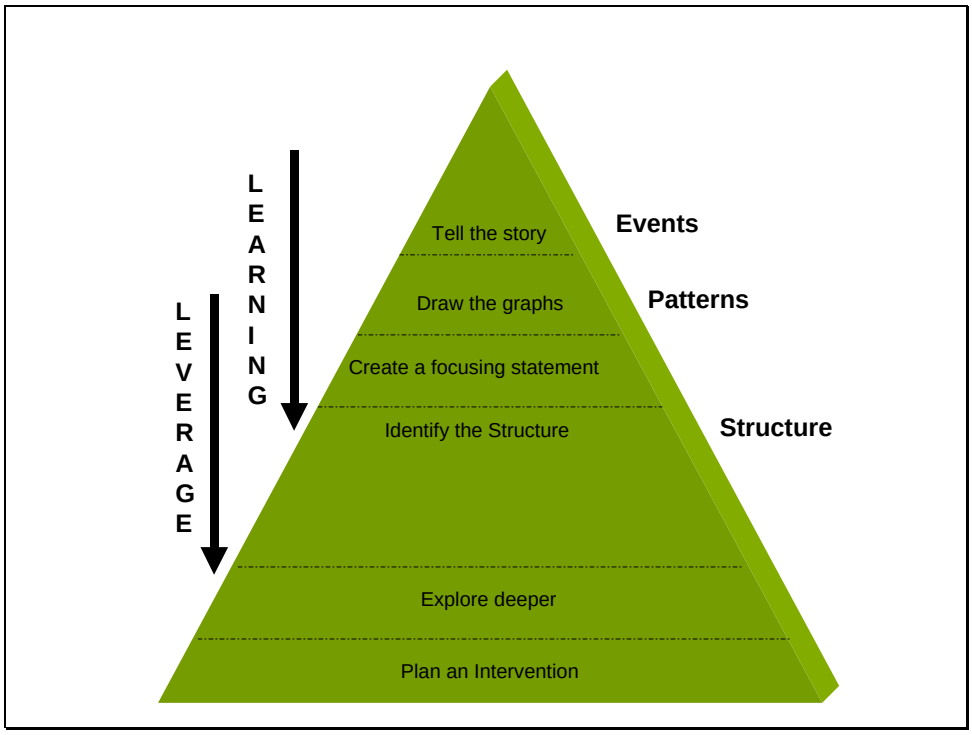
Organisations and people are living systems, constantly changing with an innate energy that can potentially solve any problem. Furthermore, it is proving to be a challenge to define the contribution of eLearning to business performance from a linear point of view. If the Western paradigm of examining the world and humans as living organisms rather than machines is changed, it might provide new insight into the research problem (Wheatley, 2001). People often see the same things but interpret them differently based on their own way of thinking (Salisbury, 1996).

Systems Thinking follows **a specific pattern in order to unearth the deeper structure of problems**. The following steps are relevant in this pattern:

- telling the story;
- drawing the graphs of the behaviour caused by the problem over time;
- creating a focus statement;
- identifying the structure driving the trends and patterns;
- exploring deeper; and
- planning an intervention (Innovation Associates, Inc., 1996).

Figure 3.3 summarises the generic steps in Systems Thinking. These steps were used to outline the research process as well as design the systemic inquiry (captured in the moderator guide) of the study. The systemic inquiry is one of the tools that were used in this study to collect data regarding the research problem and the design of the system that 'ought to be'. The systemic inquiry is based on the work of Strumpher (2001).

Figure 3.3: Generic steps in Systems Thinking



(Adapted from: Innovation Associates, Inc., 1996:2-9)

The **planning of interventions** will not be reported in this study but will be implemented as a solution to the practical problem represented in this study.

The beliefs and assumptions around Systems Thinking guide the objectives of this study as well as the research process and the subsequent research design.

3.4. The purpose and objectives of the study

The **purpose** of this research project is to identify leverage point/s that will improve business performance through eLearning.

Given the purpose, the **objectives** are to:

- identify the **driver problem** that prevents eLearning from improving business performance.
- design the **systems dynamic model** that represents the driver problem.
- identify the **leverage point** within the systems dynamic model.
- reflect on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

3.5. The research question

Based on the purpose of the research and the research objectives, the main research question can be phrased as:

What is the leverage point that will improve business performance through eLearning?

The research question and Systems Thinking create the context for the following subsidiary questions to be answered:

- What are the **problems** related to improving business performance through eLearning?
- What is the **key driver/s** of the identified problems?
- What is the **system in focus**?
- Who are the **main stakeholders** influencing the system in focus?
- How can the system in focus be presented **systemically**?
- What is the **leverage point** related to the system in focus?
- How does the **behaviour** of the individuals participating in the research process influence the research inquiry?

Table 3.1 provides an overview of the research question, research objectives and detailed subsidiary questions, data collection methods, actions and outputs for this study. Colour coding is used in the table to cluster the relevant research objectives and subsidiary questions. The colour coding that was applied is shown on the next page.

Research Objective 1:	To identify the **driver problem** that prevents eLearning from improving business performance.
Research Objective 2:	To design the **systems dynamic model** that represents the driver problem.
Research Objective 3:	To identify the **leverage point/s** within the systems dynamic model.
Research Objective 4:	To reflect[2] on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

This colour coding is used throughout the study report.

The 'Data collection, Actions and Outputs' column documents the actions implemented during the research project in order to collect evidence for and to explain, each of the research questions. In this column, a next level of colour co-ordination links the data collection methods to the research design in Table 3.2.

[2] Reflection includes the observation of the behaviour of the focus group participants and the attempt to understand the effect of these behaviours on the outcome of the study.

Table 3.1: Research question, research objectives, subsidiary questions, data collection methods, actions and outputs

Research question	Research objectives		Subsidiary questions		Data collection methods, actions and outputs	
What is the leverage point that will improve business performance through eLearning?	To identify the driver problem that prevents eLearning from improving business performance.	To reflect on the effect that the behaviour of the individuals, participating in the research process, has on the research inquiry.	What are the problems related to improving business performance through eLearning?	How do the behaviour of the individuals participating in the research process influence the research inquiry? What effect does the process have on the individuals participating in the research inquiry?	Immersion process (Focus group delegates interview colleagues) Focus group interview Lists of problems	Employ two observers during the focus group to observe the group dynamics, mental models and synergy of the workshop participants. Do post focus group discussion with moderator and observers (unstructured interview). Verify focus group outputs with three eLearning experts (unstructured interview). Obtain feedback from focus group participants (survey).
			How can the problems be grouped together as themes?		Focus group analysis Themed groups of problems	
			How does each of the themes influence one another?		Focus group analysis Digraph per focus group	
			What is the driver problem?		Focus group analysis Count arrows	
	To design the systems dynamic model that represents the driver problem.		What is the system in focus?		Focus group interview System in focus statement	
			Who are the main stakeholders of the system in focus?		Focus group interview List of stakeholders	
			What are the measures of performance?		Focus group interview Two measures of performance per stakeholder	
			What are the co-producers for each of the measures of performance?		Focus group interview List of co-producers per measure of performance	
			How can the elements of the system in focus be represented systemically?		Focus group analysis Integrated systems dynamic model	
	To identify the leverage point within the systems dynamic model.		Which of the co-producers influence the systems dynamic model the most?		Focus group analysis The leverage points that represent the point of value creation	

3.5.1. Research objective 1:

To identify the driver problem that prevents eLearning from improving business performance.

Preparation was done for this research objective through an immersion process. **Data** was **collected** through four focus group interviews. During the focus groups, the problems were **analysed** through theming or grouping of the problems listed by the focus group participants. Further **analysis** was conducted by designing and developing a digraph with the themes identified. The **driver problem** was identified by counting the number of in and out arrows on the digraph.

3.5.2. Research objective 2:

To design the systems dynamic model that represents the driver problem.

A 'system in focus' statement was **designed,** based on the information gained in Research objective 1. Subsequently, **data** was **collected** about the stakeholders, measures of performance and co-producers relevant to the 'system in focus'. Three focus groups were used to collect the data. A systemic analysis process supported the creation of systems dynamic loops and an integrated systems dynamic model.

3.5.3. Research objective 3:

To identify the leverage points within the systems dynamic model.

Research objective 1 and 2 provided the necessary data for this objective. A systemic **analysis** process was utilised to identify the starting point of the systemic story, i.e. the leverage point.

3.5.4. Research objective 4:

To reflect on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

Mental models and belief systems underlie the assumptions that guide thought and action [observable behaviour] (Dills & Romiszowski, 1997: 340). Thus, the results that were produced by the research participants were influenced by their mental models. These mental models were reflected in the behaviour of the individuals during the focus group process and had an effect on the outcome of the study.

Data was **collected** through observation, post focus group discussions and verification of the data with verifiers. Further data to gain understanding into the mental models of the individuals was obtained from the focus group participants through a survey.

In order to create the intellectual puzzle, the **research process** was designed to gain insight into the issues underlying the choice of data collection methods.

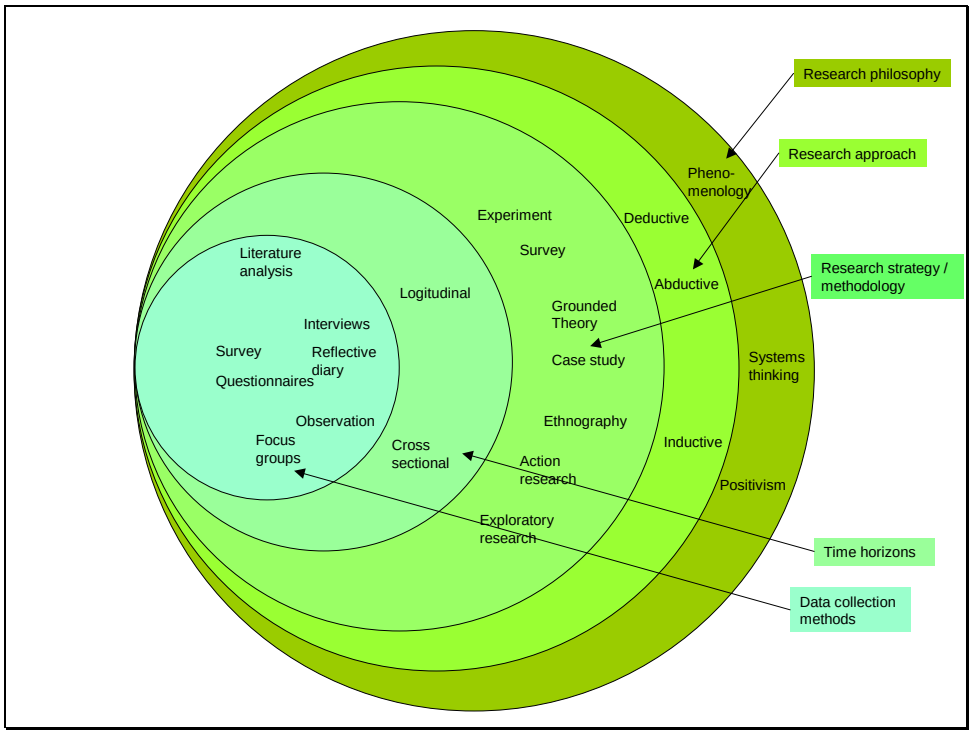
3.6. The research process

The research process is used to define the research strategy of this study in detail. Figure 3.4 describes a generic research process 'onion' that supports the researcher to "depict the issues underlying the choice of data collection methods" (Saunders *et al.* 2000:84).

The layers of the research onion represent the following aspects:

- research philosophy;
- research approach;
- research strategy/methodology;
- time horizons; and
- data collection methods.

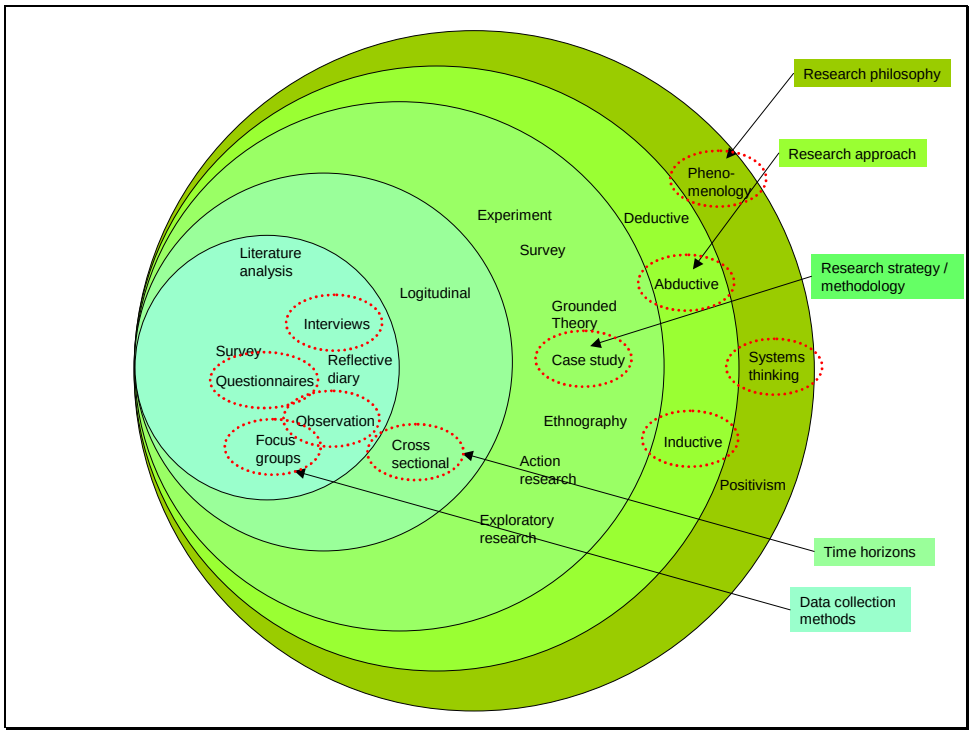
Figure 3.4: The research process 'onion'



The research process 'onion' has been adapted from Saunders *et al.* (2000:85).

Figure 3.5 shows how the research process 'onion' as applied in this study. The specific research philosophy, research approach, research strategies, time horizons and data collection methods are circled in red. These selections and decisions culminate in a research design.

Figure 3.5: The research process for this study



The research process 'onion' has been adapted from Saunders, et. al. (2000:85).

> *The **research philosophy** depends on the way you think about the development of knowledge* (Saunders *et al.* 2000:84).

This study aims to uncover a deeper complexity of the relations between business performance and eLearning, by focusing on the structure beneath the 'water line'. From the literature review, it was deducted that these relations are complicated and that a deeper level of understanding is required in order to create more knowledge about this phenomena. Thus, due to the "complexity of the problem" (Saunders, et. al., 2000:86), and the "necessity to discover the details of a situation to understand reality or a reality that is working behind these details" (Remenyi, Wlliams, Money & Swartz, 1998:35), the research philosophy of the study can be framed within **phenomenological philosophy** although it does not follow the specific research design of a phenomenological study. "Phenomenology, a 20th-century philosophical movement, is dedicated to describing the structures of experience as they present themselves to consciousness, without recourse to

theory, deduction, or assumptions from other disciplines such as the natural sciences." (Phenomenology homepage, 2004).
The phenomenological approach aligns closely with the assumptions and beliefs of Systems Thinking.

It is accepted that all individuals hold certain assumptions and attitudes. In the phenomenological approach, the beliefs and attitudes see the individual views as part of the conceptualisation or creation of meaning in the surrounding world and directs how an individual will act in that world (Flinders and Mills, 1993). In this study the assumptions and attitudes of individuals, about business performance and eLearning, will guide the design of a systems dynamic model, as well as the identification of a leverage point. The outcome of the study is therefore subject to how the individuals in this study create meaning of their surrounding world, and how they act upon this meaning.

The **ontological perspective** describes **what** the research is about in a fundamental way. It requires the researcher to position herself and to understand how **her worldview influences the research carried out** (Mason, 2002). Scott and Usher (1999:10) have a similar view, stating that certain **"… philosophical issues are integral to the research process … what researchers 'silently think' about research.**" The different ontological properties of this study can be described as follows.

- The world and humans are seen as living organisms, part of a systemic whole.
- Within the systemic whole, people are social actors that respond humanly to different situations.
- The systemic whole consists of multiple realities and versions of the truth. Different people see different aspects of the same phenomenon.
- The subconscious and instincts of people (with regards to being required to implement eLearning as a solution) influence their view of the systemic whole.
- People's attitudes, beliefs and views influence how the relationships within the systemic whole are seen and reflected.

- The outcome of discussions is subjective and contained to the specific context within which it took place.
- All events and trends are driven by a deeper structure of beliefs and assumptions of the individual.
- Interactions (conversations) between people, as a collective group, are stronger than the individual.
- People's knowledge, views, understanding, interpretation experiences and interactions are meaningful views of the social reality. It is important to see how these actions influence the outcome of the focus groups and whether the results are representative of the collective, or if specific individuals influenced it.
- The perceptions of people of the phenomenon are of special interest to this study (Wheatley, 2001; Scott & Usher, 1999).

According to Mason (2002:16) the **epistemological perspective** debate is about what might "… represent knowledge or evidence of the entities or social 'reality' that I … investigate". Scott and Usher (1999:11) adds that epistemology is concerned with "… what **distinguishes different knowledge claims**". The emphasis is on the **criteria** that allows the researcher to determine what is **legitimate knowledge** and what is **assumption** (opinion or belief) (Scott and Usher, 1999).

> *How do we know what we think we know?*
> (Scott and Usher, 1999:11).

Thus, the **objective of the epistemology** is to create a set of rules for knowing – the moment any claim is made about the knowledge and the validity thereof, epistemology is implied (Scott and Usher, 1999).

From an **epistemological view,** knowledge sources that represent legitimate knowledge in this study are listed below.

- Interactively talking with people in groups, asking them about their views, assumptions and beliefs around a phenomenon.
- Observation of individuals in a group interaction.
- Participating in a recurring process of data generation and analysis to gain access to the deeper structure of the phenomenon and to

understand how the events and trends above the water line are influenced by the assumptions and beliefs of people that are hidden below the water line.

The **research approach** indicates whether the use of "… theory is explicit within the research design" (Saunders, et. al., 2000:87). Mason (2002:179) describes the research approach as "deciding what theory does for your arguments". This enables the researcher to:

- *take a more informed decision on the research design;*
- *support the researcher in the decision-making process as to what will work and what not; and*
- *adapt the research design to cater for constraints, for example, insufficient understanding of the topic to form a hypothesis* (Saunders *et al*. 2000:89).

Saunders *et al.* (2000:91) states that the **inductive** approach emphasises:

- *gaining access to understanding of **meaning humans attach to events**;*
- *a close understanding of the research context;*
- *the collection of **qualitative data**;*
- *a more flexible structure to permit changes of research emphasis as the research progress;*
- *a realisation that the researcher is part of the research process; and*
- ***less concern with the need to generalise***.

This study follows the **inductive approach** where data is collected and a theory is developed as a result of the data analysis. Through the focus groups, access is gained to the understanding of **meaning** that humans attach to the events. Most of the data in the study is **qualitative**. The concern for **generalisability is low** as there is an understanding that the context within which the research is done greatly influences the outcome of the research results. The objective for using the inductive approach is to ensure that all angles are covered in terms of understanding the deeper structure of the research problem.

> *A less structured approach may reveal alternative explanations* (Saunders *et al.* 2000:89).

The inductive approach is specifically in line within Systems Thinking as this approach also focuses on uncovering the important hidden structure below the water line, possibly revealing alternative explanations.

Blaikie (2000:25) describes another research approach – the "**abductive research strategy**" – as the process of moving between everyday concepts and meanings, lay accounts and social science explanations. Mason (2002:180) describes a scenario of abductive research as:

> *Theory, data generation and data analysis are developed simultaneously in a dialectical process … will devise a method* [process] *for moving back and forth between data analysis and the process of explanation or theory construction*.

Scott and Usher (1999:3) state that abduction is applied as a research approach when the researcher "can only know social reality through the eyes of the social actors involved in it."

In this study, the **continuous movement** between data generation, collection and analysis as part of the systemic thinking methodology, aligns with the scenarios created by the cited authors. Furthermore, the participants in the study are seen as the **social actors** in the study describing their reality in their world of work.

Mason (2002:181) supports the use of more than one research approach:

> … *it is worth pointing out that most research strategies* [approaches] *in practice probably draw on a combination of these* [inductive, deductive, abductive, retroductive] *approaches.*

Saunders *et al.* (2000) describes the research strategy as a generic plan guiding the researcher to answer the specific research questions. There are various different research strategies.

> *The **research strategy** will be a general plan of how you will go about answering the research question(s) you have set* (Saunders *et al.* 2000:92).

During the first stages of this study, an exploratory research strategy was followed to create a deeper understanding of the phenomena at play within the systemic whole of the research project. The research strategy is a **qualitative case study**. Merriam (1998:27) defines a qualitative case study in terms of its **end product*:***

> *A qualitative case study is an intensive holistic description and analysis of a single instance, phenomenon, or social unit*.

This definition of a case study reflects the actions of this study. A **holistic description** is given of a specific business unit in a specific financial institution. The eLearning leverage point/s represents the **single phenomenon** in this context.

The **time horizon** of this study was limited to a specific period of time. . The focus group participants were involved in the study during the period June – July 2003. It represents a snapshot or cross-sectional view of the systemic reality.

Interviews, focus groups, observation and surveys were used as **data collection methods**. The question is how all of this is linked together in a design that will create a roadmap from start to finish. The **research design** is seen to be such a roadmap.

3.7. The research design

> *A **research design** is the logic that links the data to be collected to the initial questions of a study* (Yin, 1989:27).

The research design for this study is the action plan for getting from here to there; 'here' being defined by an initial set of questions, and 'there' a set of conclusions or answers about the questions. Between the 'here' and 'there', a number of major steps may be found, like the collection and analysis of relevant data. The **logical sequence** of the research design should help the researcher to ensure that the evidence addresses the initial questions (Yin, 1989; Mouton, 2002).

> *Choosing a study* [research] *design requires understanding the* ***philosophical foundations*** *underlying the type of research and your personality, attributes and skills, and becoming informed as to the design choices available to you in* ***your paradigm*** (Merriam, 1998:1).

The research design for this study is formulated according to the following perspectives:

- research strategy;
- data collection methods;
- data collection instruments or processes;
- data sources;
- timing in terms of when the instrument is administered;
- qualitative vs. quantitative nature of the data; and the
- trustworthiness and continuity of the data (Bell, 1989; Mason, 2002; Merriam, 1998; Mouton & Marais, 1992; Saunders *et al.*, 2000; Yin, 1989).

Table 3.2 represents a summary of the research design for this study. Each of the perspectives represented in the table is discussed in detail thereafter.

Table 3.2: The research design

Research Strategy	Qualitative Case Study						
Data collection methods	Interview			Focus group interview		Survey	
				Inquiry	Observation		
Data collection instrument/process	Interview sheet	Post focus group discussion with moderator and two observers	Verification of focus group outputs with three eLearning experts	Systemic Inquiry process resulting in a leverage point	Observation report	Biographical information questionnaire (Part 1)	Post focus group questionnaire (Part 2)
Data source	Colleagues of focus group participants	Moderator Observers	Verifiers	Focus group participants	Focus group participants	Focus group participants	Focus group participants
When administered	Before focus group sessions	After focus group session 1 and 2	After focus group session 1 and 2	During focus group session 1 and 2	During focus group session 1 and 2	After identification of target population	After focus group session 2
Qualitative vs. Quantitative	Qualitative	Qualitative	Qualitative	Qualitative	Qualitative	Quantitative	Quantitative Qualitative
Who administered	Focus group participants	Researcher	Researcher	Moderator	Observers	Researcher	Researcher
Trustworthiness and continuity	Collaborative research	Peer examination	Peer examination Audit trial Triangulation	Collaborative research Triangulation	Peer examination Triangulation	The investigator's position	Triangulation

3.8. The research strategy – A Qualitative Case Study

According to Merriam (1998), a qualitative enquiry focuses on **meaning in context**. It requires data collection instruments that are **sensitive to underlying meaning** during data collection and analysis. 'Meaning in context' is specifically relevant to this study as it is using **human opinion** to interpret the situation around eLearning – the phenomenon – in order to identify leverage point/s.

The **systemic inquiry** process is specifically relevant in the context of the creation of meaning as it allows people to formulate opinions and delve into their deeper assumptions and beliefs. It allows sensitivity to underlying meaning. The process goes through two iterations of data collection and analysis, working constantly with the assumptions and beliefs of the participants. One of the outcomes from the systemic inquiry that is specifically relevant to this study is the leverage point.

3.9. The data collection methods and instruments

> *Interviewing, observation and analysing activities are activities central to qualitative research* (Merriam, 1998:2).

The first three data collection methods used in this study were:

- **interviews** (Mason, 2002; Merriam, 1998; Morgan, 1988).
- **focus group interviews** (Krueger & Casey, 2000; Greenbaum, 1988; Morgan, 1988; Templeton, 1987); and a
- **survey** (Saunders *et al.* 2000; Cohen & Manion, 1980).

During the focus group an additional data collection method – **observation** (Mason, 2002; Krueger & Casey, 2000; Merriam, 1998; Greenbaum, 1988; Templeton, 1987; Morgan, 1988) – was used for "trustworthiness and continuity" purposes (Merriam, 1998). Observation will therefore be motivated as a **fourth data collection method**.

The data from the interviews and the focus groups is **qualitative**. The data from the survey was mainly **quantitative,** except for specific open-ended questions that were asked in the semi-structured questionnaire.

3.9.1. Qualitative Interviews

From an ontological point of view, this study is based on the assumption that "… people's knowledge, views, understanding, interpretation, experiences and interactions are meaningful" (Mason, 2002:63). The epistemological view assumes that people talking interactively is a meaningful way to create data. Based on the ontological and epistemological views in the study, qualitative interviewing was selected as a data collection method.

The qualitative interview further allows for social argument to construct "depth, nuance, complexity and roundness in data" (Mason, 2002:65).

In this study, it is important to obtain and understand the perceptions of the focus group participants about eLearning and Business Performance. These perceptions are driven by certain individual assumptions and beliefs that form the structure of the iceberg (the person's opinion and beliefs about eLearning) below the water line.

The **advantages** for doing qualitative interviews in this study were to:

- allow the **individuals freedom** to create shared meaning with the researcher.
- allow the researcher to move back and forth in time to construct both the future and the past.
- allow **space for the surfacing of additional arguments** or adding different dimensions to a perspective.
- allow the data produced in the focus group interviews to be **verified** and the arguments to be **tested**.
- **create** access to data that would not generally be accessible in other ways. The sharing of ideas and a mental model creates a new dimension or paradigm for understanding the impact of eLearning on business performance.
- **create understanding** between the interviewer and the respondent that there can be more than one perspective of the same problem. It allowed for the appreciation of alternative views (Cantrell, 2003; Mason, 2002).

The **challenges** associated with doing qualitative interviews in this study were that:

- there was less control over the data that was collected.
- the interviewee may not have known enough about the phenomenon being studied.
- the interviewees might have had different ontological views to that of the researcher.
- specific people were selected and alternative or opposing views may have been left out (Cantrell, 2003; Mason, 2002).

Three data collection instruments were used to do the relevant qualitative interviews:

1. an **Interview sheet** (a semi-structured interview);
2. **Post focus group discussions** with the moderator and the two observers (unstructured interview) (Greenbaum, 1988); and
3. **Verification of focus group outputs** with three eLearning experts (unstructured interview) (Strumpher, 2001).

3.9.1.1. Interview sheet

The interview sheet was used by the focus group participants to interview their colleagues. The **objectives** for interviewing colleagues of the focus group participants were to:

- **involve the participants** of the research project in all phases of the research from conceptualisation to analysis (collaborative research) (Merriam, 1998).
- get the focus group participants to realise that **we all see differently** at the same time.
- **broaden the focus** group participants' understanding of the topic at hand.
- **enrich the data** brought into the focus group.

An example of the interview sheet is attached as **Appendix A**.

3.9.1.2. Post focus group discussion

The **objectives** for doing the post focus group discussions were to:

- ensure the internal validity of the process by allowing "**colleagues to comment** on the findings as they emerge" (peer examination) (Merriam, 1998:204).
- "discuss the **findings** of the group [focus groups] that was conducted" (Greenbaum, 1988:99).
- determine if the "resultant group process was successful in generating the **information needed***"* to answer the research objectives (Greenbaum, 1988:99).
- "develop a consensus among the assembled group as to the main points of the session" (Greenbaum, 1988:99).

After each focus group session an unstructured interview took place between the researcher, moderator and the two observers. During the interview the following topics were addressed:

- What worked well?
- What could be improved?
- A general open discussion.

The researcher documented the main points and decisions made during the conversation.

3.9.1.3. Verification of focus group outputs

The **objectives** for doing the verification of the focus group outputs were to:

- allow "**colleagues to comment** on the findings as they emerge" (peer examination) (Merriam, 1998:204).
- **"authenticate** the findings" (Merriam, 1998: 206) of the focus groups (audit trial). Strumpher (2001) also supports this view.
- strengthen the reliability and internal validity of the research project (Merriam, 1998) through using

multiple methods of data collection and analysis (triangulation). Yin (1989) also supports this view.

The Moderator Guide, detailing the systemic inquiry process (Strumpher, 2001), guided the unstructured interview. The Moderator Guide is attached as **Appendix B**.

The **ethical considerations** that were taken into account during the design, development and implementation of the qualitative interview (Henning, 2004; Mason, 2002) are listed below.

- The respondents were required to give informed consent indicating that they would like to participate in the research. In order to do this, they needed to understand that their privacy and sensitivity was protected and what the outcome of the research would be used for.
- Consent was given by responding to an open invitation to participate in the research. Consent to participate was also obtained from other role players in the research, such as the verifiers, Absa stakeholders, the moderator and observers.
- The researcher aimed to treat all content with utmost discretion and ensured that no specific individual could be implicated through the results of the study.
- The creation of a protected environment that allowed for freedom of speech and the sharing of open and honest views, allowed the researcher to generate richer data.
- It was important to the researcher that the respondents enjoyed the process and felt that they also benefited from it.

Focus group interviews as a data collection methodology is a separate discipline from qualitative interviews, but also has certain overlaps. Therefore focus group interviews will be discussed in detail.

3.9.2. Focus group interviews

A **focus group** is a specific type of group with a specific purpose to listen and gather information. It is used as a way to understand how people feel and think about a phenomenon. The participants are

selected based on specific characteristics that they have in common and that they relate to the research topic (Greenbaum, 1988; Krueger and Casey, 2000).

Krueger and Casey (2000:5) define a focus group as:

> *A carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive non-threatening environment.*

The definition above led to the formulation of objectives for focus groups in the context of the study. It also described some criteria for the research, i.e. having the permission of the participants and creating an environment conducive to forming a trust relationship with the participants.

The **objectives** for doing focus group interviews were to:

- **involve the participants** of the research project in all phases of the research from conceptualisation to analysis (Merriam, 1998).
- **collect information** relevant to each of the research objectives.
- analyse the information collected to **explore and obtain findings** for each of the research objectives.
- ensure that the researcher's **biases** do not unduly influence the outcome of the focus groups by utilising a focus group moderator (Merriam, 1998).

The **advantages** for doing focus groups in this study are listed below.

- Focus group research allowed the participants to share and respond to ideas, helping the researcher to explain and explore concepts.
- The focus groups allowed for a variety of points of views to emerge due to the presence of several participants.
- The environment encouraged the participants to relax and participate in the conversation.

- The structured approach used in the focus group process (documented in the Moderator Guide **Appendix B**) provided the necessary rigor for enabling trustworthy research results.
- The way in which the moderator facilitated the focus groups promoted self-disclosure amongst the participants.

The **challenges** represented by focus groups in this study were:

- The ability to create an environment that encouraged the participants to relax and share openly and freely.
- Developing a sufficient level of rapport that enabled sharing.
- Complex skills were necessary to facilitate the successful outcome of the study.
- The purpose of the group had to be kept clear at all times in order to prevent it from turning into a fuzzy, non-productive session that could lead the group in the wrong direction.

The data collection instrument used to do the focus group interviews was the **Moderator Guide**. The moderator guide contains the systemic inquiry process (Strumpher, 2001). The Moderator Guide is attached as **Appendix B**.

The **ethical considerations** that were taken into account during the focus groups (Krueger and Casey, 2000; Greenbaum, 1988), are listed below:

- **Ethics between the researcher and the moderator**: The **researcher** had to trust the moderator in key areas such as maintaining confidentiality, refraining from working on projects that might cause a conflict of interest, not using the information gained in an incorrect context and exerting a total effort in terms of the quantity and quality of thinking. The **moderator** had to trust the researcher to keep within the scope of the agreement and to be honest about the intent of using the outcome of the focus group. Furthermore, the researcher had to take the welfare of the participants into account in terms of what they would be exposed to during the focus group sessions.

- **Ethics between the moderator and the research facility**: The **moderator** had to trust the research facility to maintain high level confidentiality as to the proceedings and content discussed during the focus groups and to destroy any materials left in the facility after the groups were completed.
- **Ethics between the moderator and the participants**: The **moderator** had to inform the participants that they were being observed as well as what the observation objectives were. The moderator also confirmed that the observation report would not single out individuals. Furthermore the moderator had to inform the participants that the ideas and conversation that they offered during the sessions would be treated with the utmost confidentiality, but that they did not have any claims on the final product produced by the study. The **participants** had the ethical responsibility toward the moderator to be honest and straight-forward during the discussions and that they should reflect what they felt, rather than what they thought the moderator wanted to hear. It was expected of the participants not to discuss the content of the focus groups with people outside the company after the completion of the sessions.

The ethics of the focus groups were consciously approached and care was taken to respect all people that played a role during the focus group research.

3.9.3. Observation

> *Learning is a process by which each individual creates his or her own understanding of the world and how to interact with it. People form models in their minds that help them make sense of their experiences. These models define which behaviours are considered appropriate for each level* (Dill & Romiszowski, 1997: 340).

The quote highlights two important aspects.

1. Systems Thinking is about learning; and
2. Mental models of people influence their behaviour.

> *These mental models and belief systems underlie the assumptions that guide thought and action. Learning is the process of identifying and questioning the existing models and then testing new assumptions for use as guides to more effective action* (Dill & Romiszowski, 1997: 340).

Observation of the participants during the focus group sessions becomes critical as the above statement is analysed. It is important to capture the **beliefs and assumptions** of the participants and to reflect this in the study, as this will determine the specific paradigm from which the study will be approached.

> *Changing models, beliefs, and assumptions is a very difficult task. Given this difficulty, learning takes time* (Dill & Romiszowski, 1997: 340).

Systems Thinking cannot be rushed. It is about thinking about thinking (Strumpher, 2001). Enough time must be allowed for **learning** to take place between the participants in order to **increase the depth** of understanding and discovery of the **relationships** of the problem structure (Moloi, 2002; Dill & Romizowski, 1997; Senge *et al.* 1994).

> *Learning in organisations means the continuous testing of experience, and the transformation of that experience into knowledge – accessible to the whole organisation, and relevant to its core purpose* (Senge *et al.* 1994:49).

These discoveries and learning throughout the process will lead to **new knowledge** about eLearning improving business results. Thus, in order to maximise the value of the focus group research, observation of the focus group participants was selected as an

additional data collection method. The observers were to observe both verbal and non-verbal behaviour. Verbal observation was done in terms of the voiced mental models and non-verbal observation was performed through noting the group dynamics and synergy. While observation of focus groups is traditionally done by clients (Green, 1988), in this study the **objectives** of observation was to:

- report on the group dynamics, mental models and synergy of each of the focus groups.
- allow "**colleagues to comment** on the findings as they emerge" (peer examination) (Merriam, 1998:204).
- strengthen the reliability and internal validity of the research project (Merriam, 1998) through using **multiple methods of data collection** and analysis (triangulation).
- ensure that the researcher's **biases** did not unduly influence the outcome of the focus groups (Merriam, 1998).

The observation in this study was done without real participation, as the observers did not become part of the group. Henning (2004) names this type of observation as **standardised observation**.

The **advantages** for using observation in this study are listed below.

- Observation of behaviours of the research participants created context for the study.
- Standardised observation provided a complimentary data collection tool to expand on the richness of data of the holistic study.
- Observation gave further meaning to the influence of each of the role players in the process and provided a wider picture description of the verbal and non-verbal reactions of the focus groups.
- The observers, through their presence, served as a **check against bias**, prejudice and selective perceptions and through reporting, ensured the authenticity and transparency of the implementation of the research process (Henning, 2004; Cantrell, 2003; Merriam, 1998).

The **challenges** faced in this study when using observation are listed below.

- Standardised observation did not in itself provide very rich or complex data.
- The presence of the observers might have had an influence on the behaviour of the participants.
- The mental models of the observers might have influenced how they viewed the actions and reactions of the participants (Henning, 2004; Cantrell, 2003; Merriam, 1998).

The data collection instrument used to collect the observation data was an observation sheet. The observation sheet is attached as **Appendix C**.

The **ethical considerations** that were taken into account during the design and execution of the observation are listed below.

- Informed consent had to be gained from the focus group participants in order to do the observation.
- Accurate notes had to be made about the behaviour observed in the groups.
- The observation had to be clearly tied in to the research objectives and subsidiary questions.
- The observers only had to record what was necessary for answering the specific research objective. Thus, they had to be consequent in what data was omitted or included.
- During the reporting process the observers had to respect the individuals participating in the focus groups by not identifying them accidentally through recognisable behaviour or descriptors.

3.9.4. Survey

The most common form of surveys is based on positivist epistemology and naïve realist ontology (Scott and Usher, 1999). In this study, the survey was used as a follow-up to the focus group participants, using an electronic questionnaire as the data collection instrument. The questionnaire was the conduit to obtain feedback

from the participants. Due to the convenience of the electronic survey, all the participants who were part of the focus groups could be questioned regarding their thoughts and feelings about the systemic inquiry.

Cohen and Manion (1980:71) describe **surveys** in the following way:

> *Surveys gather data at a particular point in time with the intention of:*
>
> *a) describing the **nature of existing conditions**; or*
>
> *b) identifying standards against which existing conditions can be compared; or*
>
> c) *determining the relationship that exists between specific events.*

Denzin (1970), Bailey (1987) and Saunders *et al.*, (2000) describe surveys in a similar way.

Based on the definition, the survey was used to gain insight into the nature of the thoughts and feelings of the participants. Furthermore, the survey was used to determine the effect that the research inquiry had on the focus group participants. Thus **objectives** of the survey were to:

- collect **biographical information** of the focus group participants for declaring the investigator's position (Merriam, 1998);
- strengthen the reliability and internal validity of the research project (Merriam, 1998) through using **multiple methods of data collection** and analysis (triangulation).
- determine the **reaction of the focus group** participants towards the systemic inquiry process with regards to:
  - the participants opinion regarding the logistical arrangements of the focus groups; and
  - the influence of the research inquiry on the participants.

The **advantages** for using observation in this study are listed below. The questionnaire:

- allowed all the focus group participants to provide feedback to the researcher.
- provided additional information about the focus group participants that was not available on the human resources system.
- provided access in an alternative manner to some of the thoughts and feelings of the focus group participants.

The main **challenge** faced in this study was the collection of the questionnaires from the participants. Several reminders had to be sent out to motivate a response.

The data collection instrument was a survey with two sections. The fist section focused on the **biographical information** of the focus group participants, while the second part of the survey focused on the **feedback from the participants** regarding the process they had experienced.

The following biographical information was requested from the focus group participants:

- employee number;
- employee name;
- job description;
- gender;
- age;
- home language;
- length of service in current job position;
- qualifications; and
- prior experience/occupation.

The data collection instrument is attached as **Appendix D**.

The **ethical considerations** that were taken into account during the design, development and implementation of the electronic questionnaire are listed below.

- The respondents were allowed to be open and honest with feedback by respecting their privacy and maintaining confidentiality.
- Care was taken to correctly report the data as shared by the respondents.

The design and development of the data collection instruments formed part of the **preparation phase** of the study. The instruments were implemented during the execution phase of the study where data was collected, generated and documented.

3.10. Systemic data collection / inquiry process

In this study, the process of **inquiry** reflects an inquisition into, or a focused examination of, a specific phenomenon. The different data collection instruments were weaved together in a holistic systemic process of recurring data collection and data analysis.

The data collection and analysis process happened in **three** phases:

- **Phase 1:** Preparation for focus groups;
- **Phase 2:** Execution: Focus groups data collection, analysis, verification and observation; and
- **Phase 3:** Closure of the process.

Figure 3.6 represents the three phases and the relevant steps that were executed during each of these phases.

Figure 3.6: Data collection and analysis process – Preparation, Execution and Closure

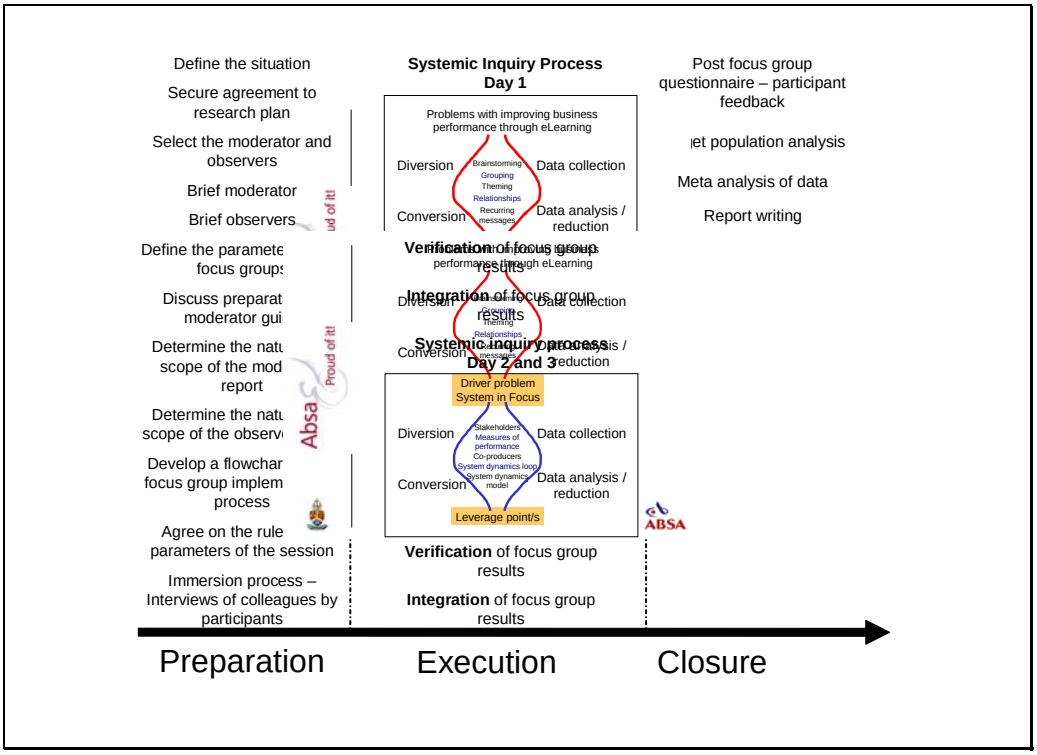


Figure 3.6 was designed from collective input from different sources (Strumpher, 2003; Goebert & Rosental, 2002; Krueger & Casey, 2000; Greenbaum, 1988; Morgan, 1988; Templeton, 1987; conversations with the verifiers Lawrence Mlotshwa, Dr. Beatrice Horne and Barry Vorster on 10 and 18 July; conversations with the observers Lee-Anne Deal and Sophia Nawrattel on 1 July; conversation with the moderator Christa Swart on 3 July; conversation with Johan Heroldt on 1 July).

In the next section the details of the steps that were followed during each phase are discussed.

3.10.1. Phase 1: Preparation for the focus groups

The steps that were completed during the preparation phase are listed below.

- The situation was defined.
- Agreement to the research plan was secured.
- The moderator and the two observers were secured and briefed.
- The preparation of the Moderator Guide was discussed with the moderator.

- The nature and scope of the moderator and observer reports were discussed and contracted.
- A flowchart for the implementation of the focus group process was designed.
- The rules and parameters of the session were contracted with the moderator and the observers.
- The data collection process was initiated by setting the focus group participants in motion to interview their colleagues.

The first step during the preparation phase of the research project was to **define the situation** within which the focus groups were to take place. The topics that were discussed during the definition of the situation are listed below.

- A summary of the situation.
- The purpose of the focus group sessions.
- How the data produced would be utilised.
- What the composition of the focus groups would be.
- What the budget of the total project would be. The budget of the total project is attached in **Appendix E**.

Following the definition of the situation, the stakeholders were identified and the research plan was contracted with the relevant stakeholders.

The **moderator was selected** based on her extensive understanding and experience in people behaviour and effectiveness in conducting interviews. The moderator also displayed previous competent behaviour in handling group dynamics without becoming involved in the content being facilitated.

Due to the number of participants in the focus groups and the subsequent complexity in observing their behaviour, **two observers** were selected. The résumé's of the observers are attached in **Appendix F**.

Three verifiers were selected. The first verifier was selected based on Absa experience. The second verifier was selected based on industry eLearning expertise. The third verifier was selected based on pragmatic eLearning implementation expertise. The résumé's of the verifiers are attached in **Appendix G**.

The **moderator** was briefed on 13 June 2003. The objectives of the meeting were to:

- provide background to the research project;
- set expectations; and
- contract that a formal research report would not be expected from the moderator.

The **observers** were briefed on 1 July 2003. The objectives of the meeting were to:

- discuss the rules of the focus groups sessions relating to the observers; and
- ensure shared meaning between the researcher and the observers regarding the data to be collected.

The **parameters of the focus groups** included both a time limit and the criteria for selection of the focus group participants. The research project had to take place over a short period of time (in this case two weeks) as there was a limit to the amount of time that all the relevant role players could dedicate to the study. It was also important to maintain momentum in the process as to not lose important role players along the way.

The most **accessible venue** for all the role-players was at Absa Towers East, Johannesburg. The focus group participants consisted of a mix of role players from the Learning and Development Department, the eChannels Contact Centre (business) and the relevant support staff. The sampling criteria and process is further described in Section 3.13. Letters of invitation were then sent to individuals adhering to the specific sampling criteria. This letter is attached as **Appendix H**.

The **Moderator Guide** (based on the systemic inquiry process of Strumpher, 2001) depicts the process to be followed during the focus group sessions. The Moderator Guide for this study depicts the systemic inquiry process and is attached as **Appendix B**. It was agreed with the moderator that no moderator report would be required as the data that was generated during the focus group sessions would be captured by the focus group participants and the observers. Videotapes were made of the proceeding for back-up evidence.

The observers were **contracted** to provide a summary report after the execution phase. The report was to include content on the group dynamics, mental models and synergy of the focus group participants.

In order to get common understanding of the total process to be implemented, a **high-level flow chart** was developed that also acted as a communication tool for creating shared understanding. The flowchart is attached as **Appendix I**.

The most important **rules of the session** were that the moderator would not become involved in the content being facilitated and that the observers would not converse with the participants regarding the process or the content of the research. It was also agreed that the researcher would not participate actively in the focus group discussions, but would confer with the moderator in order to guide the process, should it be necessary. The researcher was not allowed to confer about the content produced by the participants at all.

The last step of the preparation phase was to let the selected focus group participants **interview their colleagues**. The data collected through the interviews provided input for the next phase of the process, i.e. Phase 2: Execution. More content on each step in the preparation phase is attached in **Appendix J**.

3.10.2.Phase 2: Execution

The execution phase represents the implementation of all the work that was prepared during Phase 1. This is where the story came together. The focus groups were held over a period of three days.

Day 1 focused on the identification of a driver problem. The objective was to create focus in a variety of problems identified by the role-players.

Four focus groups participated in Day 1. The focus groups were set to do different tasks as designed and specified in the Moderator Guide. The focus group participants were requested to complete the following tasks during Day 1. To:

- understand the context of the research and the process applied.
- form focus groups.
- discuss the problem statement.
- list the problems related to the problem statement.
- organise the different problems into themes.
- debate how the themes influence each other and capture the essence of each of the arguments as 'Reasoning statements'
- determine which of the themes represented the driver problem.
- debate the system in focus that represents the driver problem.

The **behaviour** – group dynamics, mental models and group synergy – of the different groups were documented throughout each of the tasks set to them. The details of the steps implemented on Day 1 are attached as **Appendix K**.

The conclusion of the focus group session was followed with a post focus group discussion between the researcher, the moderator and the observers. The researcher facilitated the session using the following questions to guide the conversation:

1. What worked well?
2. What did not work?
3. General comments.

The next step in the execution phase was the **verification of the focus group** results. This was carried out for the purposes of creating an audit trial, to allow for peer examination and triangulation of the data produces during the focus groups sessions. The verification session took place two days later on 10 July 2003 at 8:30 am at Absa Head Office.

The verifiers were taken through the Moderator Guide in order to expose them to the same content that the focus group participants were exposed to. It also created a similar context to the one that was created for the participants. The data collected and analysed by the focus groups was then presented to the verifiers for comment. The comments of the verifiers were attached to the originally-captured documents of the focus groups. A scribe documented the themes of the conversations between the verifiers. More information about the verification process is attached as **Appendix L**.

In order to complete the next step in the execution phase, it was necessary to integrate the digraphs designed by the four focus groups. The researcher integrated the results of the focus groups and the information collected during the literature research to **design one digraph**. Once again, the **reasoning statements** were documented for each of the relationships between the problem statements on the digraph. The integrated digraph identified **one driver** problem.

The driver problem was used to design the systems dynamic model and then ultimately identify the leverage point/s that will allow a company to improve business performance through eLearning more effectively and efficiently.

Day 2 started with the researcher giving the focus group participants an overview of the feedback that the verifiers provided as well as explaining the integrated digraph. The researcher took care to create shared meaning regarding the relationships and the reasoning statements on the diagraph.
Three focus groups were formed. The criteria used for forming the focus groups adhered to the parameters designed during the

preparation phase. All the focus group participants were exposed to the Day 1 process. According to the planning, two days were necessary to complete the end goal of the focus groups, i.e. identifying the leverage point/s that will allow eLearning to improve business performance.

During the two days the three focus groups completed the tasks as set out below. The:

- system in focus was identified.
- primary stakeholders of the system in focus were identified.
- measures of performance for each of the stakeholders were determined.
- co-producers that led to each of the specific measures of performance were determined.
- systems dynamic model was designed.
- stories that were represented on each of the systems dynamic models were told and captured.
- leverage point was identified.

As before, the behaviour of the three focus groups was documented throughout the process, noting the group dynamics, mental models and synergy of each one of the groups. At the end of Day 3, the focus group participants were asked for feedback regarding the systemic inquiry process and comments on their own learning.

The details of the implementation of Days 2 and 3 are attached as **Appendix M**.

A debriefing session was held at the closure of Day 3. The researcher facilitated the session and a similar process, as to the one for Day 1, was followed.

The results of the focus groups were verified again. The verification session was held on 18 July 2003 and followed the same format as the previous verification session. In addition to the verification requirements, the verifiers were also requested to comment on:

- the process that was followed; and
- their personal experience and learning during the process.

The systems dynamic models produced by the focus groups were **integrated**, forming a single systems dynamic model with a single leverage point. The steps listed below were implemented to do the integration.

- Re-write statements on yellow 'stick-its'.
- Re-organise finding similar statements and themes and re-write the overall statement reflecting the same intent.
- Utilise the stories and reasoning statements to design an integrated systems dynamic model.
- Conduct a meta-analysis reflecting on the recurring messages and differences between the three focus groups.
- Tell the story.
- Identify the leverage point.

All the results produced by the focus groups were then ready to be put through the closure phase that focused specifically on documenting the outputs and integrating the final results.

3.10.3.Phase 3: Closure

The third phase of the process represents the closure. Following the completion of the focus group interview, a post focus group questionnaire was sent out. This questionnaire firstly obtained more information about the focus group participants and, secondly, requested individual feedback about their experience of and feeling about the process that they were exposed to.

Once the data was documented, the researcher had to make sense of the data to find patterns or recurring messages. The unique value that each focus group added was also considered.

On completion of the data generation, collection and analysis, the process was documented. More details regarding the closure phase are attached as **Appendix N**.

In the design and execution of this research, it was important to follow a rigorous process to ensure contribution of usable knowledge to the educational community. It is therefore important to consider the criteria for judging the quality of the study.

3.11. Criteria for judging the quality of the research

Different paradigms require different tests or criteria for judging the quality of the research design. For example, for the positivists, there exists a "scientific holy trinity" (Kvale, 2002:300). However, Henning (2004:147) argues that "… **good craftsmanship, honest communication** and **actions** are reasons for rating research as good scholarship." She further states that it is in **conversations** and in **discourse communities** where the value of research is determined.

Good craftsmanship is based on **precision** throughout the research process. In this study, the researcher, the moderator, the verifiers and the study supervisor assured the quality throughout the process. These role-players checked the study for bias, neglect or lack of precision and adding and taking away topics or content where necessary.

The study supervisor and the verifiers **questioned** all procedures and decisions critically. The verifiers also added value by **theorising**, i.e. "… looking for and addressing theoretical questions that arise throughout the process – not just towards the end" (Henning, 2004:7). The research actions and the content were also **discussed** and **shared** with peers, for example, the focus group participants, the verifiers, observers and the moderator. This was done throughout the process to ensure immediate action to allow for a positive knowledge building cycle (Henning, 2004; Merriam, 1998). The scenario described above is reflected both in the research objectives and design of this study.

Presenting the integrated digraph to the focus group participants is an example of how member checking was done in order to either agree or improve on the researcher's interpretation of their input. Once again, the conversations with the verifiers proved valuable as "validity comes from being able to get your ideas accepted in the discourse community" (Henning, 2004:149). Honesty in the conversations is of the utmost importance (Henning, 2004).

The third concept, described by Henning (2004), is taking **action**: pragmatic consequences of knowledge claimed as valid. Henning (2004) describes the

requirement that the design has to be built for action that can be reasonably instigated. The research design must therefore be explicit and must allow for its ability to be converted back into social action. The actions that needed to be completed during this study were defined in such a way that it could be managed through project management principles. The outcomes of the study were implemented to change approaches and specifically aimed at changing the social interaction between the Business and the Learning and Development Department. The contribution of the focus group participants throughout the process allowed the researcher to become a more objective participant, focusing on driving action and implementation, rather than producing the content.

The actions to ensure quality in this research design are summarised below.

- Collaborative research was done through utilising the focus group participants to execute data collection, analysis and interpretation. The participants also did a post focus group evaluation via the electronic questionnaire.
- Peer examination was done by the verifiers, moderator, observers and focus group participants, who critically reviewed the content that was produced throughout the process.
- An audit trial was provided by the verifiers, who thoroughly checked the process of the content, the beliefs and the assumptions in the study. This process also authenticated the findings.
- The researcher's position was stated in order to ensure that the researcher biases did not unduly influence the outcome of the study. This was ensured through the triangulation and collaborative research.
- Triangulation was done through utilising more than one data collection method in order to provide evidence for a research objective.

  Cohen and Manion (1980:208) define triangulation as "the use of two or more methods of data collection in the study of some aspect of human behaviour." Denzin (1990:592) defines triangulation as "the application and combination of several research methodologies in the study of the same phenomenon."

  In this study an attempt was made to ensure triangulation by using four data collection methods – interviews, focus groups, observation

and a survey. Further to this, multiple sources for collecting data were used. The sources for collecting data were:

- colleagues of the focus group participants;
- moderator;
- observers;
- verifiers; and
- focus group participants.

Six data collection instruments were used to collect the data from these sources:

- an interview sheet;
- post focus group discussions;
- verification discussions;
- a systemic inquiry process (Moderator Guide);
- observation sheets; and
- an electronic questionnaire.

The outcomes of the focus group interviews were triangulated with the audits completed by the verifiers as well as the peer examination completed by the observers. The feelings of the focus group participants were triangulated with the survey results and the observation report. Thus the triangulation was implemented on **various levels** to focus a **central image** from various perspectives. Denzin and Lincoln (1995) describe this multi-perspective triangulation as **crystallization**.

The research design must be actionable and therefore detailed time-lines were contracted with all role-players to execute the study.

3.12. Time frames for implementation of the assessment process

Table 3.3 shows the milestones and actions in this project and the relevant end dates.

Table 3.3: Milestones, actions and end dates

Milestone	Actions	End date
1. Preparation for data collection	Design of the study	February 2003
	Contracting of the relevant people	April 2003
	Design of the focus groups	May 2003
	Design of the interview	June 2003
	Design of the observation	June 2003
	Design of the surveys	June 2003
2. Execution of data collection	Execution of the interviews	June 2003
	Execution of the focus groups	July 2003
	Execution of the verifying sessions	July 2003
	Consolidation of the data from the Focus Group Day 1 for an integrated **Digraph**.	Mid July 2003
	Consolidation of the data from the Focus Group Day 2 for an integrated **Systems Dynamic Model**.	October 2003
3. Closure actions	Electronic survey sent out	August 2003
	Target population analysis	October 2003
4. Data-analysis	Report on the data per research question	January 2004
5. Closure	Comparison of research findings to literature research, focusing on recurring messages and differences. Writing of the research report.	August 2004

Two sample groups were selected in the study: the focus group participants and the colleagues of the focus group participants.

3.13. Sampling

The 42 business units in Absa represent the wider universe or 'holistic system' for Absa. These business units provide a service to Absa clients in the context of the Absa vision and service values. One of the business units is the **eChannels: Contact Centre**. This unit telephonically supports current

clients in managing their accounts and sells new products to prospective. This implies that the employees in the Contact Centre have to be extremely competent in order to deliver the required business results.

Within Absa, eLearning is provided by a central expert division – the **Learning and Development Department**. This department contains highly skilled instructional designers that deliver learning solutions across all organisational boundaries on a day to day basis. The instructional designers also display an in-depth understanding of technology. This combination of technology and instructional design makes them a **powerful and effective team to design eLearning**.

The eChannels Contact Centre and the Learning and Development Department represents that wider universe that this study focused on. The samples were selected from this population.

> *Sampling and selection are principles and procedures used to identify, choose, and gain access to relevant data sources* (Mason, 2002:120).

Sampling was implemented in this study for the following reasons:

- **Practicality**: It allowed access to the assumptions, beliefs and practices of the role players with regard to eLearning improving business performance.
- **Focus**: From a **strategic point of view**, a specific sample with eLearning experience in a business context was necessary to provide focus on "depth, nuance and complexity, and understanding how these work" (Mason, 2002:121). The driver of the selection process was to create richness and depth of the data rather than quantity. Focus was also created from a **practical point of view**. The sample was selected from the Gauteng area to limit travel and absence from the work environment.

The sample was asked provide the data necessary to address the research questions. In this study, the sample was also requested to participate in the **analysis** process. The sample could therefore support the researcher in developing an …

> *empirically and theoretically grounded argument about … your* [the researcher] *intellectual puzzle, and the focus of your* [the researcher] *research questions* (Mason, 2002:121).

The significance of the wider universe from which the sample was drawn is grounded in the broad ontological perspective of the study (Mason, 2002). The ontological perspective of this study frames people as being part of a wider holistic system constantly changing and renewing itself. It places the person and his/her personal values, assumptions and beliefs at the core of the study. Due to this, all results of the study are only relevant in the specific context created by the boundaries of the qualitative case study in the wider universe.

A specific sample was selected as focus group participants from the Contact Centre and the Learning and Development environments. The focus group participants in turn selected a sub-sample of colleagues to broaden their perspective on eLearning improving business performance.

Each of the samples is discussed in terms of the sample strategy, when and where the sample was taken, how many people were part of the sample, access to the sample and challenges faced by the sample.

3.13.1. Focus group participants

The specific divisions that could be involved as focus group participants were the eChannels: Contact Centre and the Learning and Development Department. Further to the sample being part of this system, the individuals had to be exposed to specific events and happenings, in this case two eLearning interventions:

- eChannels Socialisation; and
- Fraud Awareness.

The selection of the departments was based on involvement of the departments in eLearning interventions and the willingness of the departments to participate in the study. The Learning and Development Department designs and develops eLearning and is thus

is an important role-player. The eChannels: Contact Centre is one of the business units in Absa that participates actively in eLearning. The eLearners and managers also seem very painted about eLearning and the value that it adds. eChannels' willingness to participate and to voice their opinions made them an ideal partner for the study.

In conversations with Bev Judd (15 April 2003) and with Elna Steyn (4 June 2004), the following roles were identified as significant in linking the eLearning interventions to business performance:

- **Needs Analyst**: analysing the training need registered by the business unit.
- **Instructional Designer**: designing the applicable eLearning solution for the requested training need.
- **Implementer**: the person responsible for facilitating the implementation of the eLearning solution.
- **Online Facilitator**: nurturing the online learners from a social point of view.
- **Operations Manager**: the line manager that has control over the learners participating in the eLearning interventions. This manager is also **held accountable for business performance** through sales and services targets.
- **Team leader**: leader of a group of employees. These employees are the eLearners.
- **Technologist**: technical supporter of the eLearning system.
- **Learner support**: application support regarding how to use eLearning.
- **eLearning administrator**: responsible for the eLearning registration process of learners and courses.
- **eLearners**: employees participating in the eLearning interventions.

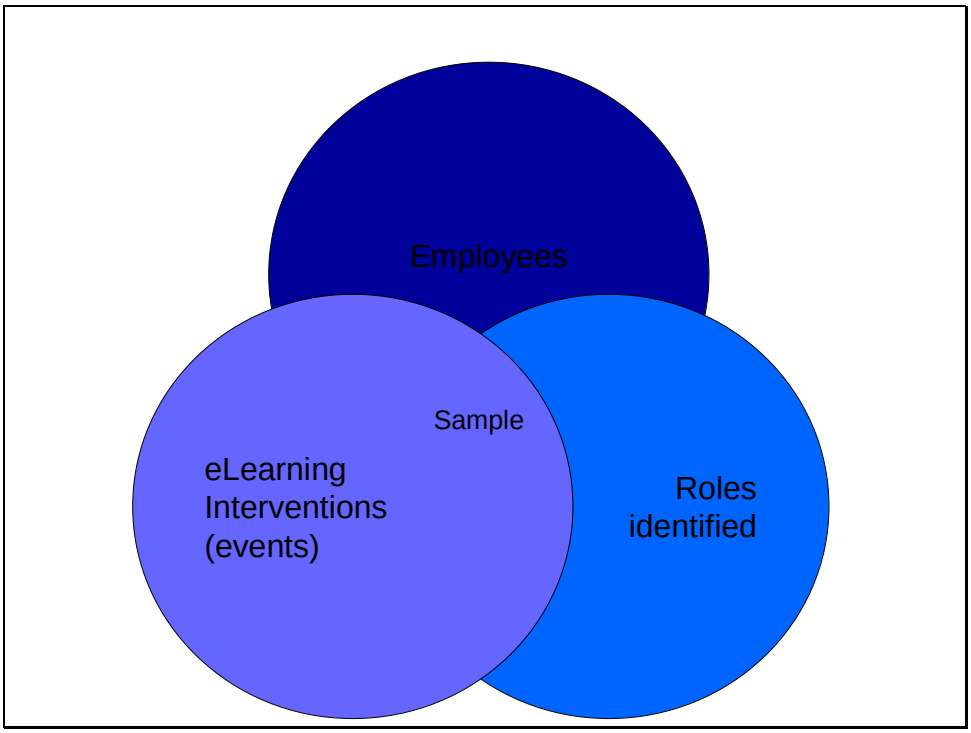
Having identified the events – eLearning interventions – and the roles responsible for realising the events, specific people were selected. These people therefore had to adhere to the following criteria:

- had participated in one of the eLearning interventions; and
- be active in one of the roles identified.

In order to allow these people the right of refusal, they were invited to participate in the research via a formal invitation letter stating the expectations and intent of the research.

Figure 3.7 illustrates the overlap between the participants in the eLearning interventions, the roles identified and the people within these roles.

Figure 3.7: An integrated view of the sampling for the study representing what was sampled according to specific criteria



The sample for the focus groups was therefore designed in such a way to *encapsulate a relevant range in relation to the wider universe, but not to represent it directly* (Mason, 2002:124). Thus, although the sampling strategy shows the links to the wider universe, it is only indented as an illustration and it makes no claims as to how well it is represented in that universe (Mason, 2002). According to Krueger and Casey (2000), this type of sampling is **convenience sampling**.

The **challenge** with this way of sampling was that no claims could be made regarding the representation of the sample in relation to the wider universe.

The **advantage** with this way of sampling was that specific people with the ability to make a significant in-depth contribution to the study were selected.

Given the sampling strategy, Table 3.5 reflects the profile of the focus group participants. A discussion of the distributions follows after the table.

Table 3.5: Profile of the focus group participants

Measure	Results	
Number of participants in Day 1	28	
Number of participants in Day 2	21	
Average age	Needs Analyst	38 years
	Instructional Designer	38 years
	Technologist	37 years
	eLearning Administrator	56 years
	Online Facilitator	37 years
	Operations Manager	35 years
	Team Leader	28 years
	Implementer	30 years
	Learner Support	51 years
	eLearners	26 years
Current roles	Needs analyst	7%
	Instructional Designer	13%
	Technologist	4%
	eLearning Administrator	4%
	Online Facilitator	4%
	Operations Manager	4%
	Team Leader	17%
	Implementer	7%
	Learner support	4%
	eLearners	36%
Gender	Male	39%
	Female	61%
Language	Afrikaans	43%
	English	57%
Race	White	46%
	Black	18%
	Indian	15%
	Coloured	21%
Qualifications	Level 4	39%
	Level 5	29%
	Level 6	18%
	Level 7	14%

Twenty-eight people in total were exposed to the study. These people all attended Day 1. Based on the complexity of the second part (Day 2 and 3) of the focus groups and the recommendations of the observers only **twenty-one** people were invited to attend Day 2 and 3 of the focus groups.

The roles – eLearners, Learner Support, Operations Manager, Online Facilitator, Team Leader and Implementer – represent the **client's presence** i.e. the receiver of eLearning. **These role-players are also referred to as 'Business'** as they are accountable for producing the contracted business results.

The roles – eLearning Administrator, Technologist, Instructional Designer and Needs Analyst – represent the **Learning and Development specialist** function. In total 72% of the people present represented the business side and 28% the specialist function. Two of the three operational managers participated in the study.

The **average age** of the group from Business was **35**, while the average age from the Learning and Development Department was **43**. The eLearners average age was **26**. This might also be significant as the designers designing the training are significantly older than the receivers of the eLearning.

The **male** (39%) to **female** (61%) distribution reflects the overall Absa distribution of males to females (as per the Absa Human resources Management System). The two **home languages** that the participants indicated were Afrikaans and English. Fifty-seven percent of the participants indicated that English was their home language. Afrikaans (43%) did not become an issue as the official business language of Absa is English and the focus groups and all correspondence was conducted in English.

The **race** distribution of the group reflected the wider eChannels and People Management environment with 46% whites and 54% non-white.

The **qualifications** of the learners were defined according to the NQF levels. None of the participants had qualifications lower than matric (Level 4). This is due to the recruitment policy of Absa stating Level 4 as a minimum entry requirement. Thirty-nine percent of the participants had at least a level four qualification. Sixty-one percent of the group had higher education qualifications (Level 5-7).

The second sample that was used during the study was the colleagues of the sampled focus group participants.

3.13.2. Colleagues of the focus group participants

The focus group participants sampled their colleagues that they interviewed based on their participation in the eLearning interventions. This sampling was conducted **two weeks** prior to the focus group interviews taking place. The timing was important as enough time needed to be allowed for completing the interviews, but the knowledge gained by the focus group participants also needed to be recent enough to be of value in the systemic inquiry process.

Each participant was requested to interview **four** colleagues. They could select these colleagues based on their own network and the availability (convenience) of both the participant and the colleague.

The **access** to the interviewees was negotiated through the known networks of the focus group participants.

The sampling strategy was influenced by practical considerations, constraints and difficulties in the working environment. A view on what data was needed from whom – per research objective – influenced the decisions made regarding the sampling strategy. The ethical rights of the sample were considered throughout and formed a principle part of the decision-making process.

The issue with this sample was that the researcher had no control over the selection of the sample. To counter the lack of control, a detailed data collection tool was provided containing:

- how to sample;
- how to interview; and
- the actual interview questions.

The sampling activities conclude the detailed discussions of the aspects of Chapter 3. The summary provides an overview of all these aspects.

3.14. Summary

This chapter addressed the research process and design of this study. The case study was described as the appropriate research strategy, while interviews, focus group interviews, observations and a survey were used as the data collection methods. Systems thinking was explained as both a research philosophy and tool. The quality of the research design is a matter of concern for all research studies. The quality criteria were described in terms of good craftsmanship, honest communication and action. Lastly, the sample of the study and the method of data sampling for the study were discussed. This concluded the design of the intellectual puzzle for the study.

Chapter 4: Making sense of the research evidence

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4.1. Introduction

> *Data analysis in qualitative research is an ongoing, emerging and iterative or non-linear process*
> (Henning, 2004:127).

The purpose of this study is to **identify the leverage point** that will support the **improvement of business performance** through **eLearning**. This chapter reports on the implementation of the research design described in Chapter 3.

The focus groups generated the data and the researcher integrated the data with comments from verifiers. Throughout the sense-making and reporting process, the influence of the focus group participants on the process is reflected on. At the conclusion of the research process, the opinions of the focus group participants regarding the process are reported on.

The golden thread guiding the data collection process was the research question and subsidiary questions.

4.2. The research question and the research process

To achieve the purpose of the study, the main research question posed is:

What are the leverage point/s that will improve business performance through eLearning?

Four **research objectives** were identified to answer the research question:

1. To identify the **driver problem** that prevents eLearning from improving business performance.
2. To design the **systems dynamic model** that represents the driver problem.
3. To identify the **leverage point** within the systems dynamic model.
4. To reflect on the **effect** that the **behaviour** of the individuals, participating in the research process, has on the research inquiry.

The **four research objectives** were answered leading from the identification of the driver problem to the identification of the leverage point. The influence of the individuals on the process, and visa versa, was also noted through **observation**. **Interviews, focus groups** and a **survey** were also used as data collection methods. The focus group participants and their colleagues generated the data. Verifiers and post focus group discussions with the observers and the moderator created an audit trial. The **subsidiary research questions** and associated data collection instruments are summarised in Table 4.1.

Table 4.1: Subsidiary questions, data collection methods, instruments and data sources

Data collection method	Interview			Focus Group Interview		Survey	
Data collection instrument **Subsidiary questions**	Interview sheet	Post focus group discussion	Verification with experts	Systemic inquiry process	Observation report	Biographical questionnaire (1)	Post focus group questionnaire (2)
1. [1]What are the problems related to improving business performance?	Colleagues of focus group participants		Verifiers	Focus group participants	Observation of focus group participants		
2. How can the problems be grouped together as themes?			Verifiers	Focus group participants	Observation of focus group participants		
3. How does each of the themes influence one another?			Verifiers	Focus group participants	Observation of focus group participants		
4. What is the driver problem?			Verifiers	Focus group participants	Observation of focus group participants		
1. What is the system in focus?			Verifiers	Focus group participants	Observation of focus group participants		
2. Who are the main stakeholders of the system in focus?			Verifiers	Focus group participants	Observation of focus group participants		
3. What are the measures of performance?			Verifiers	Focus group participants	Observation of focus group participants		
4. What are the co-producers for each of the measures of performance?			Verifiers	Focus group participants	Observation of focus group participants		
5. How can the elements of the system in focus be represented systemically?			Verifiers	Focus group participants	Observation of focus group participants		
1. Which of the co-producers influence the systems dynamic model the most?			Verifiers	Focus group participants	Observation of focus group participants		
1. How did the behaviour of the individuals participating in the research process influence the research inquiry?		Observers Moderator	Verifiers		Observers		
2. What effect did the process have on the individuals participating in the research inquiry?		Observers Moderator				Focus group participants	Focus group participants

[1] The research objectives are listed on the previous page with similar colour coding

Henning states that **qualitative analysis** requires "**craftsmanship** and the ability to **capture understanding of the data in writing"** (Henning, 2004:101). The qualitative researcher is faced with many different options to **make sense** of the data collected. In this research design, the study was described as both deductive and abductive, implying new knowledge emerging through an iterative analysis and sense-making process.

In this study, the **systemic inquiry process** was applied to generate and interrogate data in a specific context. The inquiry process allowed for **iterative phases** of data collection and analysis. On Day 1 the process consisted of the **generation of problems** related to eLearning improving business performance. The first **analysis** process then started with the focus group participants sorting through the problems generated and creating **different clusters of problems**. Each of the clusters was then described by a **theme**. At a next level of the analysis, the **relationships** between the themes were studied and described. The relationships were analysed to determine a **driver** problem. The relationships were analysed according to the variable that most influenced each one of the other variables.

Based on the driver problem identified, a **system in focus** was created. On Day 2 and 3 the focus groups went into a next phase of data generation by **identifying and prioritising the stakeholders** of the system in focus, determining their **measures of performance**, and the **co-producers** of the performance. At this point, a second phase of data **analysis** began, through debating the relationships between the measure of performance and relevant co-produces to produce **systems dynamic loops**. Once the loops were designed, they were combined in order to create a **systems dynamic model**. The **leverage point** was identified from the models.

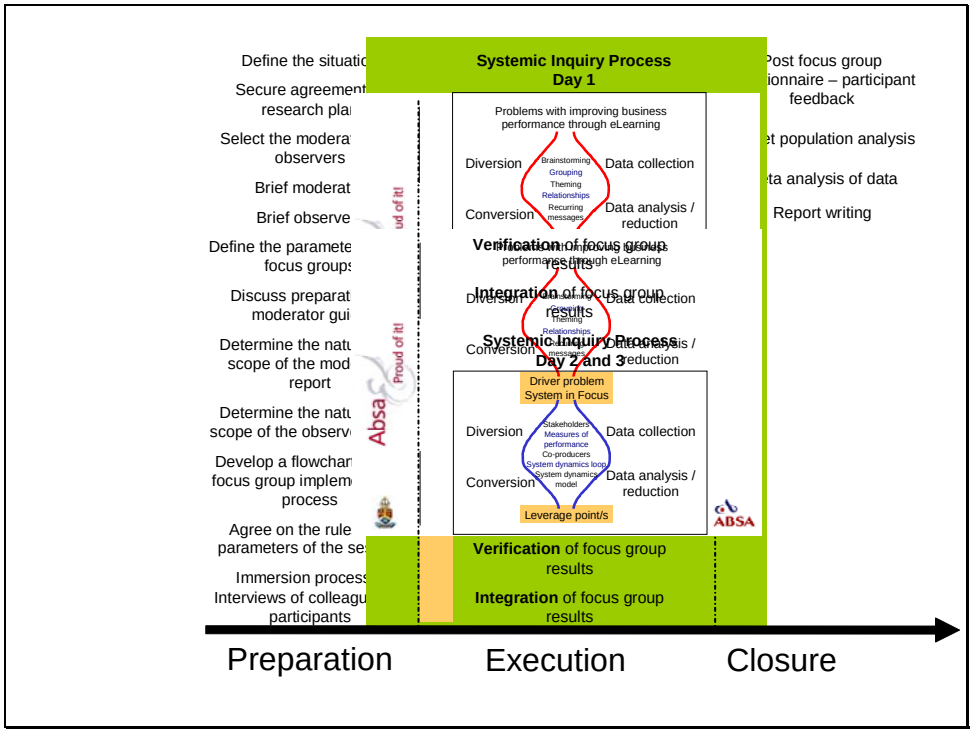
The activities within the focus groups were **observed** throughout. **Verifiers** also checked the data generated and analysed by the focus group participants in order to establish credibility.

A **second level of analysis** was done throughout, noting the similarities and differences between the outputs produced by the focus groups. The final

picture integrates the outputs produced by the focus groups into one systems dynamic model with an emerging story.

The process implemented during the execution phase of this study is presented in Figure 4.1 and is circled in lime green.

Figure 4.1: Execution process of the study



The information gathered with the various data collection instruments is discussed according to the subsidiary questions for each research objective. Due to **Research Objective 4** – the behaviour of the focus groups and the relevant participants – being relevant throughout the data generation, collection and analysis processes, its results will be reported at the end of each of the subsidiary questions. The content for Research Objective 4 is indicated in green.

Each research objective is now discussed in terms of the relevant data that emerged during the research process. The resulting recurring messages and differences between the focus groups are also reflected on.

4.3. Research Objective 1: To identify the driver problem that prevents eLearning from improving business performance

The following subsidiary questions were asked in order to realise the research objective:

1. What are the problems related to improving business performance through eLearning?
2. How can the problems be grouped together as themes?
3. How does each of the themes influence one another?
4. What is the driver problem?

4.3.1. What are the problems related to improving business performance through eLearning?

The **objective** of this question was to generate problems related to eLearning improving business performance. Two activities were performed to generate data. During the **first activity** the focus group participants interviewed their colleagues using the interview sheets that were provided to them. The **second activity** was included as part of the focus group interview process.

During the first activity, an **interview sheet**[2] with specific questions was provided to the focus group participants. The participants were requested to interview **five colleagues** regarding eLearning and business performance and to hand in the questionnaires on Day 1 of the focus group sessions.

One hundred and twelve questionnaires were returned to the researcher. On average each participant interviewed **four** colleagues. The content of the questionnaires was included in Day 1 of the systemic inquiry process and would therefore not be analysed separately.

On Day 1 of the focus group sessions, the **systemic problem** related to the research problem was stated to the focus group participants.

[2] The interview sheet is attached as Appendix A

Despite our best efforts there are still **issues** related to **improving business performance through eLearning**. Why is this so?

The focus group participants were requested to list the problems that they sew in relation to the stated systemic problem. The participants **had to incorporate the content of their interviews** with their colleagues in this session.

The listing of the problems happened in silence as to give all the individuals an equal opportunity to 'voice their viewpoints on paper'. The individuals listed **188** problems.

Examples of problems that were listed by the focus group participants are listed below:

- *Motivation lacks when training is not compulsory and not in a classroom environment.*
- *Management does not understand the process of applying eLearning within their environment.*
- *Learners find it difficult to do eLearning at their workstations as operational management see work as more important.*
- *Learners are responsible for their own training and when doing eLearning, learners are sometimes disturbed due to business importance matters being given priority above the set eLearning time.*
- *Management does not see the benefit in time gained with learners doing eLearning versus a workshop. (This includes travelling time, workshop time, etc.).*
- *Design of learning is generally learner-centred (outcomes based) and not necessarily business focussed.*
- *The desired business results are not established right up-front, when the need for the training is discussed/explored.*

During the session the behaviour of the focus group participants was observed in order to collect evidence for **Research Objective 4**[3].

Observation feedback as provided by the observers

The individuals responded to the request to list problems with improving business performance through eLearning in different ways. Some immediately recorded their inputs while others pondered the question. One individual made use of an eLearning book as a reference for the exercise. The observers heard discussions that indicated that the pre-work done by the individuals was brought into the group discussions. High energy levels in the group were apparent and individuals were highly responsive to the instructions.

The next task set to the focus group participants was to group the problems that they had identified together in similar themes.

4.3.2. How can the problems be grouped together as themes?

The **objective** of the question was to allow for generic themes to emerge from the problem statements. The focus group participants were requested to organise themselves into four focus groups. Care was taken to ensure that there were no people with direct reporting lines in the focus groups (i.e. a manager and sub-ordinate). The moderator also ensured that each focus group had a mix of Business[4] people and learning experts. This was to ensure that one-sided views did not emerge.

---

[3] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

[4] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – operational management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

The four focus groups **combined the problem statements** of the individuals. The sense-making process started. The individuals were requested to organise the different problem statements according to themes emerging from the problems. Each group then had to write a sentence that represented the theme of the collection of problem statements.

Focus group 1 had **thirty-eight**[5] problems that were grouped into **eight** themes. The emergent themes were focused around the lack of motivation of learners, lack of understanding of eLearning, issues with technology and management ownership. The overall lack of communication between the stakeholders was another theme that emerged. The eight themes are listed in Table 4.2.

Focus group 2 had **thirty-three**[6] problems that were grouped into **nine** themes. Themes emerged focusing on the lack of technology infrastructure, the lack of ability and ownership of line management and learners, communication regarding eLearning, and issues with linking specific business results to the outcome of the learning. The nine themes are listed in Table 4.2.

Focus group 3 had **sixty**[7] problems that were grouped into **ten** themes. Themes emerged about learning time, the definition of learning needs, the understanding of eLearning as a concept, the enablement of learners, management mindsets and the lack of eLearning significance to business. The ten themes are listed in Table 4.2.

Focus group 4 had **fifty-eight**[8] problems that were grouped into **eight** themes. The emergent themes included technology issues, management's lack of support of eLearning, logistical support and stakeholder management. The eight themes are listed in Table 4.2.

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[5] The detailed problems for Focus group 1 are attached as Appendix O

[6] The detailed problems for Focus group 2 are attached as Appendix P

[7] The detailed problems for Focus group 3 are attached as Appendix Q

[8] The detailed problems for Focus group 4 are attached as Appendix R

Table 4.2 presents a summary of the results of subsidiary questions 1 and 2. The number of problems and themes, and detailed theme descriptions are listed per focus group.

Table 4.2: Summary of results from subsidiary questions 1 and 2

Focus group	Number of problems	Number of themes	Themes
1	38	8	1. Lack of motivation due to learners being dependent on instruction to learn. 2. There is no consensus regarding the term eLearning and implementation of eLearning. 3. Technical support is not sufficient. 4. Management does not take ownership of eLearning. 5. Learners do not have time to do eLearning. 6. Management does not understand the ROI of "eLearning". 7. eLearning platform is not user-friendly. 8. Overall communication between all stakeholders is insufficient.
2	33	9	1. Technology infrastructure/system is not always in place to support eLearning. 2. We have not marketed/communicated the value of eLearning. 3. Learners and line management are not ready to use eLearning. 4. Designed learning material must be addressed - How do we support the learner? How do we make links back to business results? 5. The desired business results are not established right up-front. 6. Line managers do not support and help learners learn via eLearning. 7. Line managers do not see eLearning as their responsibility. 8. Learners do not have the time to do an eLearning self-paced intervention. 9. We have not created the necessary enablement to support the use of eLearning.
3	60	10	1. Learning needs are not defined and therefore not measured in terms of business results/performance. 2. Scheduling of learning time did not accommodate for business impact. 3. The concept of eLearning being just another way of learning is not understood – mind- shift. 4. Take up personal authority for learning. 5. Work environment in terms of peers/management is not conducive to learning. 6. Orientation aids to the access/navigation of eLearning platform – eReady/enabled. 7. Management mind-shift from traditional training to eLearning. 8. Past negative experience resulted in a leadership resistance. 9. Design limitations disabled learners and learning. 10. Lack of explaining eLearning and its significance to business.
4	58	8	1. Technical limitation/constraints when designing for e-platform. 2. Workshop interventions are more valued than eLearning. 3. Management does not support learning in this medium. 4. Difficulty in scheduling time to learn. 5. Technology problems inhibit participation. 6. eLearning is not sufficiently marketed. 7. Logistical support not in place timeously. 8. All stakeholders want to know 'What is in it for me?'.

Recurring themes found between the focus groups are learner motivation, eLearning competence, learning time, technology efficiency, communication, support, management mindset, and the value of eLearning to business.

Differences were found between the focus groups. Focus group 3 listed past experience and work environment as additional themes. Focus group 2 did not list **motivation** as a theme. Focus group 3 had no themes about **technology**. Focus group 4 did not list any **eLearning competence themes** or issues regarding the **value of eLearning** to business performance.

Table 4.3 lists the identified recurring messages and differences between the themes identified by the focus groups and provide more details on the discussion.

Table 4.3: List of recurring themes and differences

Recurring themes	Details
Motivation	Focus groups 1 and 4 had similar themes referring to learner motivation and the need that learners have to understand how they might gain through participating in a specific eLearning program. Focus group 3 indicated that learners did not take up personal authority.
eLearning competence	Focus groups 1, 2 and 3 had similar themes indicating that the learners and their respective management did not understand eLearning and that they did not have the necessary competence to apply it.
Time	All four focus groups indicated that there is a lack of learning time in the eChannels Contact Centre environment to participate in eLearning.
Technology efficiency	Focus groups 1, 2 and 4 implicated technology in various ways. The themes indicated that the technical environment was not user-friendly and that sufficient infrastructure was not in place. They also stated that there were technical constraints and limitations when designing eLearning.
Communication	All four groups listed communication as a theme. Focus group 1 focused on general communication regarding eLearning. Focus groups 2 and 3 stated that the value of eLearning to business performance was not sufficiently communicated. Focus group 4 felt that eLearning was not sufficiently marketed.
Support	All four groups listed support as a theme. Technical support, learner support, access support and logistical support were described as problem areas.
Management mindset	The mindset of management as a theme was mentioned in various ways in all four groups. Focus groups 1 and 2 mentioned ownership of eLearning as the issue. Focus group 3 listed the mindset of management regarding classroom training as an issue while Focus group 4 focused on the fact that management does not support electronic learning.
Value of eLearning to business	Focus groups 1, 2 and 3 listed themes regarding eLearning not being linked to business performance or return on investment for an eLearning course.
Differences	**Details**
Past experience	Focus group 3 listed past negative experience of eLearning as a theme.
Work environment	Focus group 3 listed the lack of an environment conducive to eLearning as a theme.

During the session the behaviour of the focus group participants was recorded on the observation sheet in order to collect evidence for **Research Objective 4**[9].

[9] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

Observation feedback as provided by the observers

There was a high level of sharing amongst group members of all the focus groups. The outcome of the groupings is reflective of collective input and not skewed to the contribution of a few dominant individuals.

Natural leaders emerged and took up their roles. The Groups authorized the leadership role and accepted the allocation of tasks during the process. The authorized leader took up the facilitation role in order to provide direction to the group.

At times during the sorting process, there were individuals who participated more than others. In some cases, the skill of the groups' authorized facilitators was inadequate. The diversity of Focus group 2 in terms of language, culture, levels of authority and personality could not be exploited. The Group then moved slower than in other groups where allowance was made to incorporate diversity.

The next task set to the focus group participants was to determine how each of the themes that they identified influenced the other.

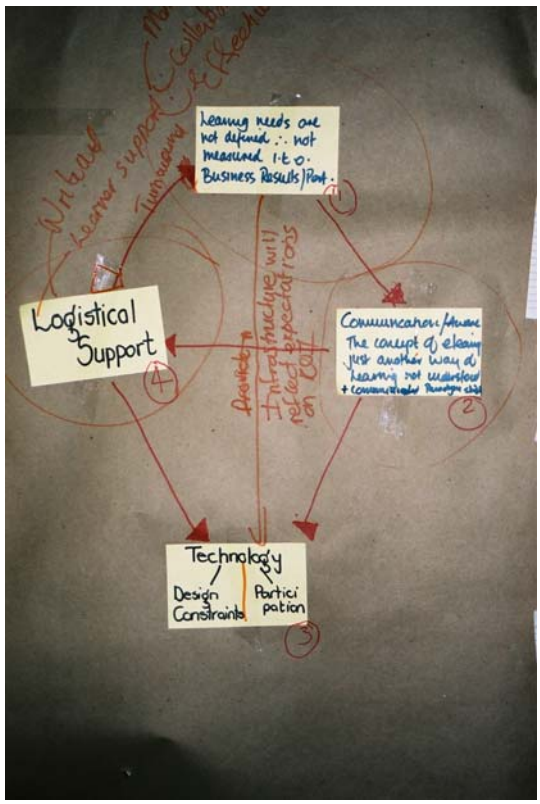
4.3.3. How does each of the themes influence each other?

This question was asked to determine what the cause and effect relations between the identified themes are. Each focus group was requested to draw a **digraph** using the themes that were identified. The digraph was designed by placing the themes in a circle on a piece of brown paper. The influence each variable had on the other was then debated and an arrow was drawn in the direction of the **greatest influence**. If the group felt that the influence between any two themes was equal, no arrow was drawn, i.e. bi-directional arrows were ruled out.

During this debate the beliefs and assumptions about why an arrow was going in a specific direction was also documented. These beliefs and assumptions were recorded as '**reasoning statements**'. The researcher used limited editing to the 'reasoning statements' to ensure a correct reflection of the intention and meaning of the focus group participants.

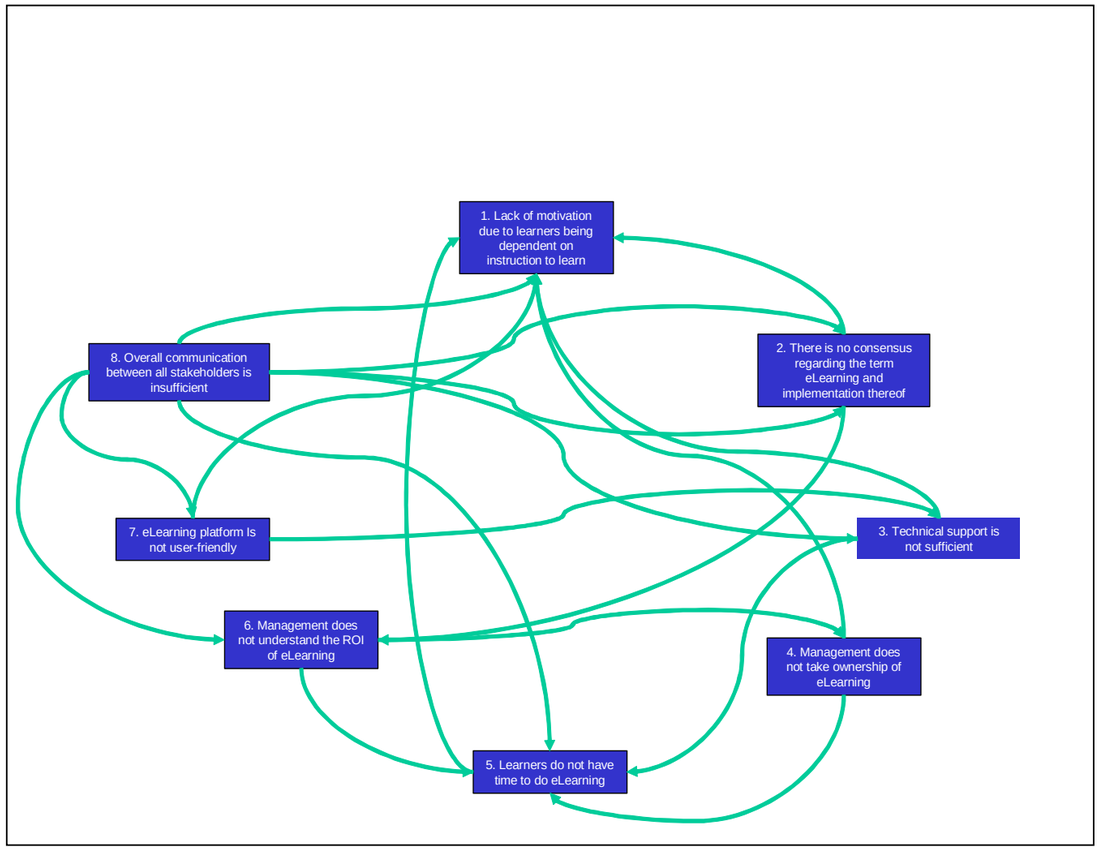
Figure 4.2 represents an example of the original work of Day 1. The digraphs of each of the focus groups are discussed here-after.

Figure 4.2: Photograph of a digraph produced by a focus group



The **digraph designed by Focus group 1** is graphically represented in Figure 4.3, followed by the reasoning statements for the interrelationships on the digraph. The numbers quoted next to the statements represent the numbers of the theme blocks on the digraph.

Figure 4.3: Digraph designed by Focus group 1



Digraph Group 1: Reasoning statements

The lack of **motivation** of the learners (1) did not influence any of the other themes. The lack of **consensus of the meaning of eLearning** and its implementation (2) leads to a lack of motivation for participating in eLearning as conflicting messages are sent to learners (1) and to management not understanding the value (return on investment) of eLearning as the benefits for the implementation of eLearning in Absa are not made clear to them (6).

The insufficient **technical support** (3) negatively influences the motivation of the learners (1), as the learners do not know where or how to access the system. The technical support also impacts on the learning time (5) as the eLearning environment is not available 24 hours, seven days a week.

The lack **of eLearning ownership** by management (4) leads to demotivation of learners (1), as management does not influence learners to participate or set a participative example. The lack of ownership also leads to the learners not having time (5) allocated for eLearning, as management perceives eLearning to be of lesser importance than business transactions.

The lack of **learning time** (5) impacts on the motivation of the learners (1). The demotivation is a result of management cutting the learning time due to work pressure. There is no scheduling of learning time and even if they do schedule time, management does not adhere to the schedule. This creates learner frustration.

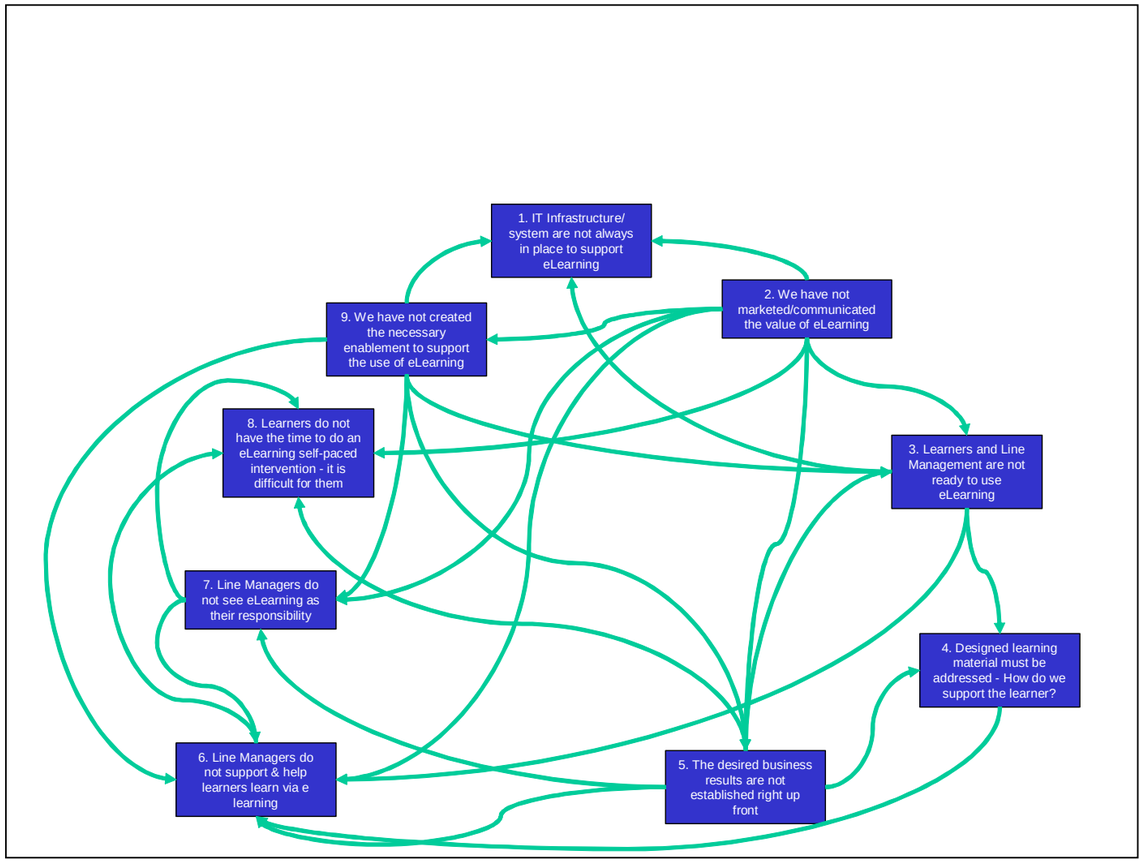
The effect of management not understanding the **return on investment of eLearning** (6) is a lack of ownership of eLearning (4) in line management. The lack of understanding of the return on investment also has an influence on the scheduling of time (5) as management does not want to allocate time to eLearning due to not understanding the value thereof.

The lack of **user-friendliness** of the eLearning platform (7) leads to a demotivation of learners (1) as learners do not know how to use the system and do not understand the layout and functionalities of the Absa eLearning environment. The inability to optimally utilise the eLearning environment once again leads to learner frustration. The user-friendliness also influences the technical support (3). It was stated that the technical support is insufficient as the technical department is not informed about the system specification and Group IT cannot provide the relevant support.

The insufficient **overall communication** (8) influences the motivation of the learners (1) as different people are communicating different messages regarding eLearning. The insufficient communication stating the value and benefits of eLearning contributes to management's lack of understanding of the return on investment of eLearning (6). The insufficient communication also influences the user-friendliness of the platform as the processes and procedures regarding communication of the eLearning platform are not in place.

The **digraph designed by Focus group 2** is graphically represented in Figure 4.4, followed by the reasoning statements for the interrelationships on the digraph.

Figure 4.4: Digraph designed by Focus group 2



Digraph Group 2: Reasoning statements

The lack of sufficient overall technology **infrastructure** (1) in the organisation does not influence any of the themes on Digraph 2. Due to the **value of eLearning** not communicated (2) to the top management of the financial institution (decision makers), the necessary support/resources for eLearning technology are not provided. This contributes to the lack of technology infrastructure (1) in the company because, if management does not understand the need for eLearning, then the technology budget will be incorrectly allocated.

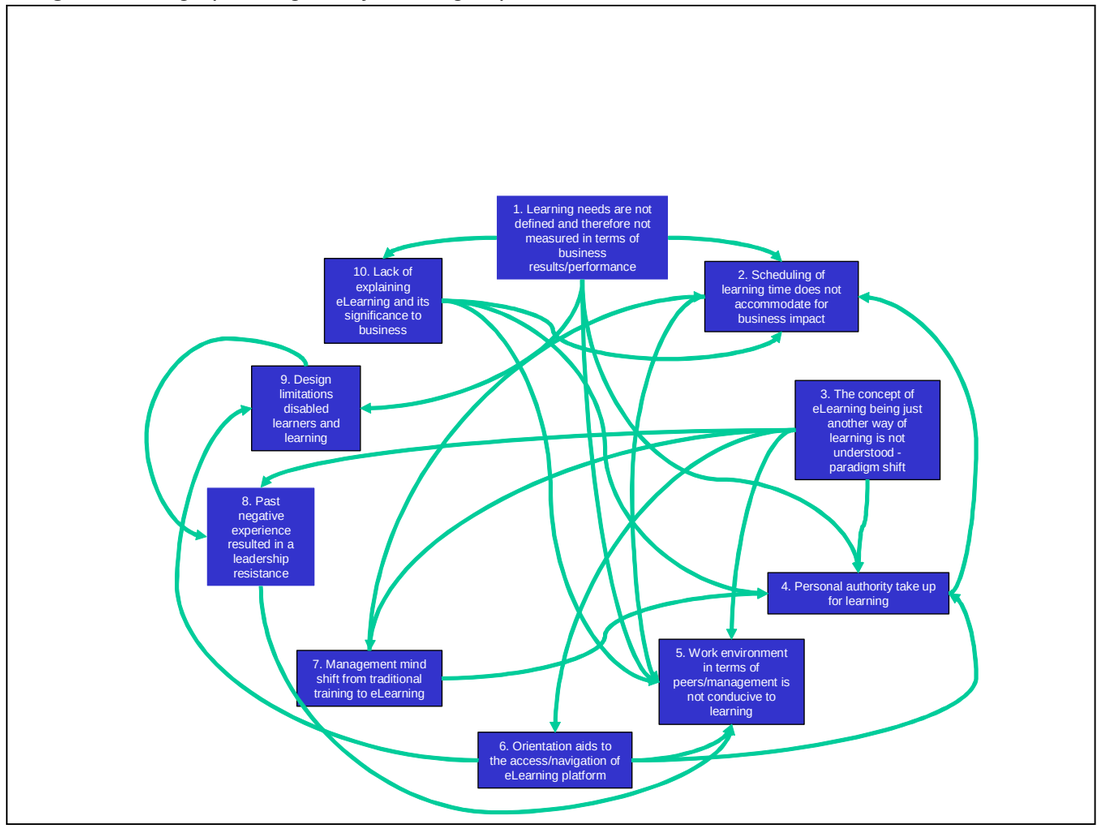
The lack of **communication** regarding the value of eLearning further leads to the learners and line management not being ready for eLearning utilisation (3) as there is a lack of awareness and understanding about eLearning. The lack of communication also leads to management not seeing the link between eLearning and business results (5) and not taking up ownership for supporting eLearning (6). Due to the lack of communication about the value of eLearning, line managers do not see eLearning as their responsibility (7) as they don't understand their role and the importance of driving eLearning. This influence (2) is also true for the learners (8) as they don't make time for eLearning due to not understanding the value thereof. The communication also influences the change management process (9) as the lack of understanding of the value of eLearning by learners and line managers leads to an absence of context for change.

The learners and line managers not being **ready to use eLearning** (3) influences the lack of technology infrastructure (1) as learners do not have access to the eLearning platform. The learner support (4) by management is influenced by the lack of eLearning readiness (3). The lack of eLearning readiness also leads to line not providing the required support for learners (6). The lack of design of the learner support as part of the learning material (4) contributes to line managers not supporting learners (6).

The lack of definition of the **desired business results** (5) influences the readiness of managers to utilise eLearning (3) as, if the line managers understand the link between business performance and eLearning, they will be more willing to use it. As the desired business results are not established up-front, the design of the support mechanisms (4) are negatively influenced, and the design is then aligned to no or incorrect requirements. The lack of definition of the business results also leads to the lack of support from management for eLearners (6) because they see no link between the eLearning solution and the desired business performance. The absence of the link between the business results and the eLearning solution leads to managers not taking up their responsibility for supporting learners (7) and further leads to learners and managers not dedicating time to do eLearning (8). The lack of **support by line managers** (6) leads to learners not scheduling time (8) for completing their eLearning. The lack of ownership from managers regarding eLearning (7) leads to line managers not taking up their support role (6) for learners. The **ownership** issue also influences the time scheduled for eLearning (8) because if "I (line manager) don't see it as my responsibility, I will not create the time for my people to learn."

The lack of **change enablement** to support eLearning (9) leads to IT infrastructure not being in place (1). The lack of change enablement also influences the readiness and acceptance levels of learners and management (3) as well as the establishment of business results upfront (5). The lack of change enablement also has an impact on the support of learners by line managers (6) and them seeing eLearning as their responsibility (7), because change will create the space for managers to take up their roles in the eLearning environment. The **digraph designed by focus group 3** is graphically represented in Figure 4.5, followed by the reasoning statements supporting the interrelationships on the digraph.

Figure 4.5: Digraph designed by Focus group 3



Digraph Group 3: Reasoning statements

The lack of **definition of learning needs in context of business performance** (1) leads to learning time (2) not being scheduled because, if the learning needs are not linked to business results, the necessity of learning time will not be justified. If learning needs are not defined, learners cannot schedule time correctly. If learning needs are defined in terms of business results, it can lead to learners seeing the need of the learning and taking up personal authority to learn (4) as well as motivating the adaptation of the work environment to be conducive to learning (5). Management won't make a mind-shift from training in classrooms to eLearning (7) if the learning is not linked to business performance and measured in terms of business results. The definition of learning in terms of business performance also leads to the creation of significance of the learning (10) in business context.

If **learning time** is carefully scheduled to have the minimum business impact (2) the work environment will become more conducive to learning (5). Inappropriate scheduling of learning time could lead to negative experiences and leadership resistance (8).

A **mind-shift** regarding the eLearning being an alternative way of learning (3) could enable learners to take up personal authority (4). The mind-shift could also lead to the work environment becoming more conducive to learning (5), ensuring sufficient orientation and ability to navigate eLearning (6), a management mind-shift from traditional training to eLearning (7) and there should be no negative experience resulting in leadership resistance (8).

If a learner takes **personal authority** for learning (4), he/she will make an effort to schedule time for learning in such a way that it does not impact business performance (2).

A **proper orientation of eLearning** access and navigation (6) (when e-readiness is in place), could lead to learners having increased confidence to take up personal authority to participate in eLearning (4). The orientation could further influence the work environment to be more conducive to learning (5) and enable learners to work within the design constraints (9).

If management goes through the **required mind-shift** from workshop to workplace eLearning (7), they will understand the value that eLearning has in the work place and the scheduling of time to do the eLearning won't be an issue (2). The **mind-shift** will also allow for the learners to take up personal authority for their learning (4).

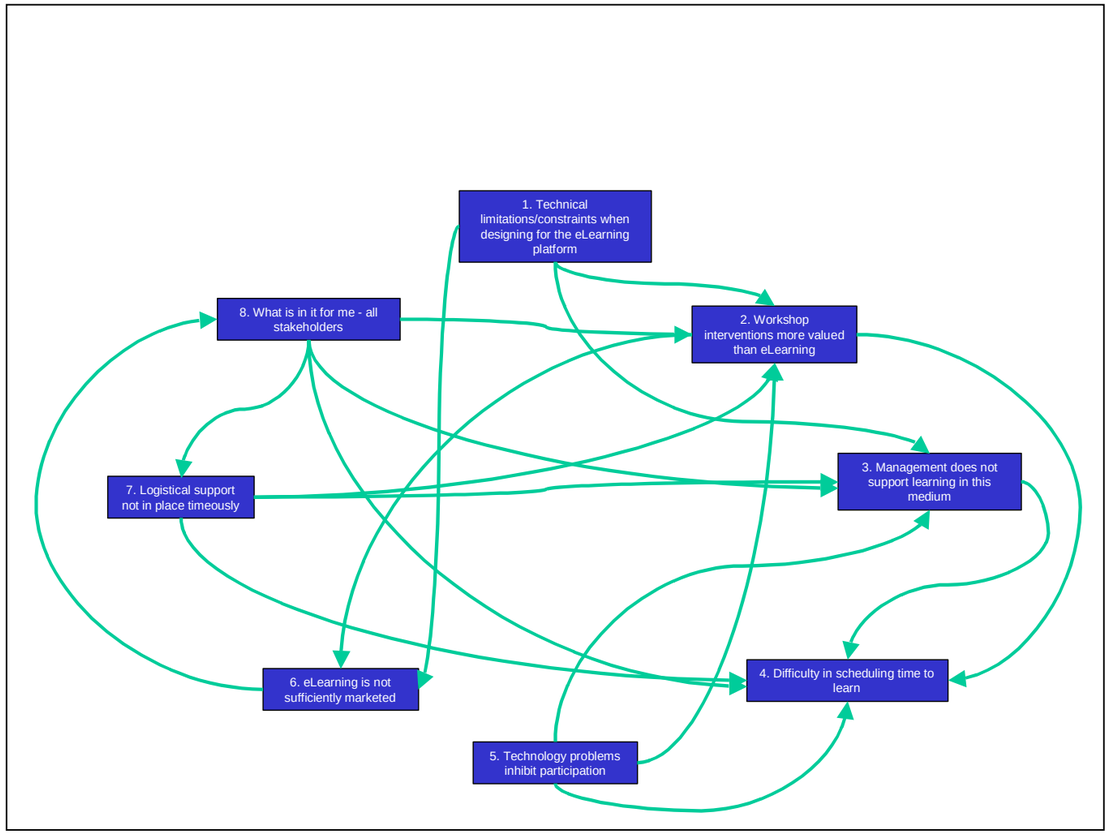
Past negative experience (8) might result in the work environment not being conducive to learning (5) as leaders are more resistant to the eLearning concept after a negative experience.

Design limitations (9) might contribute in a negative learner experience (8) as the constrained environment does not allow for expression of eloquent eLearning.

Properly explaining the **significance of eLearning** to business (10), could lead to time being made available for scheduling of learning (2) and learners taking up personal authority for learning (4) due to the acknowledgement by leaders and an effort to make the working environment more conducive to learning (5).

The **digraph designed by Focus group 4** is graphically represented in Figure 4.6, followed by the reasoning statements for the interrelationships on the digraph.

Figure 4.6: Digraph designed by Focus group 4



Digraph Group 4: Reasoning statements

Technology design constraints (1) lead to workshops being more valued than eLearning interventions (2) as they present an easy way out. The design constraints also confirm to management that they should not support the eLearning medium (3). The design constraints lead to eLearning not being marketed widely (6) as the designers are not confident to do so. They are also faced with significant management challenges because they cannot deliver what the client wants.

Due to **workshops being more valued than eLearning** (2), eLearning is not sufficiently marketed (6) and scheduling time for eLearning in the work environment becomes difficult (4).

The **lack of management support for eLearning** (3) leads to difficulty in scheduling time (4) for eLearning in the workplace as they do not know what is expected from them.

Technology limitations (5), due to computer hardware and training costs, inhibit participation in eLearning and contribute to workshops being the preferred medium for learning (2). The technology limitations make the scheduling of learning time (4) difficult – it is not available 24 hours, seven days a week, and further contributes to managers' lack of support of the medium (3).

Due to eLearning not being **sufficiently marketed** (6), the stakeholders are not aware of what's in it for them (8).

A lack of sufficient **logistical support** for eLearning (7) leads to workshops being preferred (2), as people are familiar with processes and procedures for workshop logistics. The absence of the logistical support is also not conducive for management supporting eLearning (3) and makes the scheduling of learning time difficult (4). Workshops present the easy, known way out.

If the learners **understand the value of eLearning** (8) for them as individuals, they will start to support eLearning and to move away from workshops (2). The common understanding regarding 'What's in it for me' from eLearning, influencing management support for learning in this medium (3), and will also contribute to the availability of time to schedule learning in the workplace (4) and the provision of logistical support for eLearning (7).

During the session where the focus group participants designed the digraphs, the behaviour of the focus group participants was recorded in order to collect evidence for **research objective 4**[10].

Observation feedback as provided by the observers

Focus group 1 *displayed functional group behaviour with all members contributing at least to a limited extent. In* ***Focus group 2****, a very dominant individual facilitated the group. Although the process allowed for space creation, two of the members only contributed to a limited extent. The group dynamics were, however, natural and the role-players supported the leader in her role.* ***Focus group 3*** *was perceived as dysfunctional at this point due to poor self-organisation and clear emergence of two power players that dominated the group.* ***Focus group 4*** *had a healthy and lively debate between experts from Business and Learning and Development.*

After noting the presence of the observer, the group-appointed facilitator in ***Focus group 3*** *made attempts to draw in members of the group. The results documented by this facilitator were still owned by the group. Although the results of* ***Focus group 3*** *may be skewed toward the opinions of the two power-players, the impact would not influence the outcome due to the nature of the process at this point.*

Where individual participation levels were already low, the duration of this exercise resulted in energy levels dropping even lower in these individuals.

[10] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

4.3.4. What is the driver problem?

The driver problem/s is represented by the highest number of arrows emerging from a specific theme and therefore influencing the other themes. In some cases, it might be true that there is more than one driver problem. If there is a relationship between the two themes, the one influencing the other will be regarded as the driver problem. If there is no relationship between the themes, then they are stated as separate driver problems.

In order to identify the driver problem each focus group was requested to count the number of arrows emerging from a specific theme.

In Focus group 1, the driver problem was identified as **Theme 8**: "Overall communication between stakeholders is insufficient". In Focus group 2, the driver problem was identified as **Theme 2**: "We have not marketed / communicated the value of eLearning". In Focus group 3, the driver problem was identified as **Theme 3**: "The concept of eLearning being just another way of learning is not understood – mind-shift". In Focus group 4, the driver problem was identified as **Theme 2**: "What's in it for me? – all stakeholders".

Focus groups 1 and 2 **both touched on communication**, with the first being more generic and the second focusing on the specific topic of the value of eLearning. Focus group 3 looked at the **eLearning mental model** while focus group 4 brought the individuals' need to **understand the value of eLearning** to the fore.

During the session, the behaviour of the focus group participants were recorded in order to collect evidence for **Research Objective 4**[11].

[11] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

Observation feedback as provided by the observers

The groups functioned optimally in this exercise due to broader group participation. The emergent leaders from the previous exercise retained their role in this larger group, but seemed to make a bigger effort to include all the role-players.

This exercise created the opportunity for the groups to refocus and participation levels increased, especially amongst individual participants who only contributed to a certain extent in the previous exercise. Overall, energy levels increased with the new exercise.

The **post focus group discussion** with the moderator and observers on Day 1 provided further insight into the behaviour of the focus groups. The post focus group session was held subsequent to the focus group participants leaving. The following questions were discussed:

- What worked well?
- What could be improved?
- General open discussion.

The following **feedback** was received:

- **What worked well?**
  - The mix of the focus groups and how they organised themselves into focus groups adhering to the criteria of the research project.
  - The participation and amount of interaction between the focus groups was intensive and an extensive amount of information was exchanged.
  - The moderator commented that the Systems Thinking process was well received and the tasks set to the participants were executed with ease.

- **What could be improved?**
  - The observers felt that there were some participants that were more responsive than others. A list would be provided to the researcher in order to ensure the more responsive participants would be included in Day 2.
- **General open discussion**
  - All the role-players felt that the sessions were progressing well and that no significant process changes were required. The session was closed.

On 10 July 2003 the content, as produced by the focus group participants, was **presented to a group of verifiers**. The main objective was to **validate and audit** the data produced and analysed by the focus group participants.

Each part of the systemic inquiry process was explained to the verifiers, the data and outputs produced were presented, and then the essence of the verifier comments was captured.

Verifier comments on the results produced by each focus group

Focus group 1
- *Did not bring through the theme of business value that was evident in the problem generation phase of their focus group discussion..*
- *It is important to also include the technology department in the shared-meaning process.*

Focus group 2
- *Mentoring with an expert is not available.*
- *Management is not visibly involved in eLearning.*

Focus group 3
- *"Learning is not business centric" was a theme that came out of the problem statements but this was not eloquently captured in the themes on their digraph.*
- *A common definition of eLearning seems to be a major problem.*
- *Marketing is not integrated in the approach to change management.*
- *The way in which the employees from the Learning and Development Department approach the target population might not take into account the diverse needs of the relevant target population.*
- *Learning is seen as just another product and does not include change of behaviour.*
- *No collaboration with other learners was included.*

Focus group 4
- *This focus group did not include the business side at all.*
- *The group was more focused on a technological point of view.*
- *The group seems to have been dominated by instructional designers and learners experiencing difficulty with eLearning.*

The results of the four focus groups and the feedback from the other role-players were used to create an integrated digraph.

4.4. Integrated digraph

Based on the data produced by the focus group participants and the feedback of the observers, moderator and verifiers, the **digraphs were integrated** and a single driver problem was established. This was done in order to establish a **common platform** for the second phase of the process.

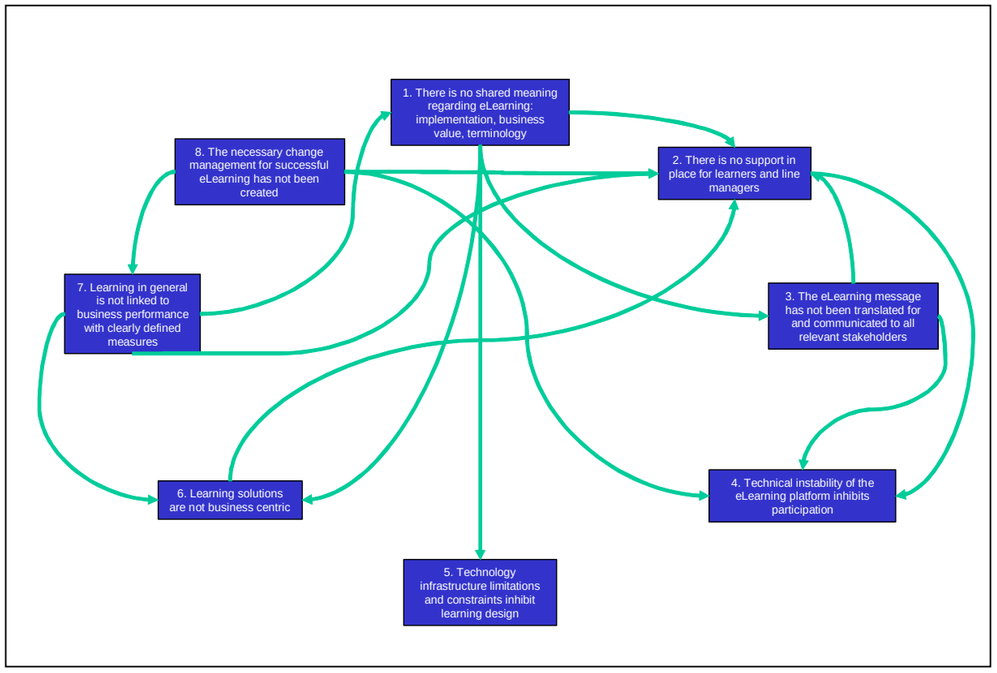
The **recurring themes** that were identified between the four digraphs designed by the focus groups are listed below.

1. There is no shared meaning regarding eLearning implementation, business value and terminology.
2. There is no support in place for the learners and managers.
3. The eLearning message has not been translated and communicated to all relevant stakeholders.
4. Technical instability of the eLearning platform inhibits participation.
5. Technology infrastructure limitations and constraints inhibit learning design.
6. Learning solutions are not business centric.
7. Learning in general is not linked to business performance with clearly defined measures.
8. The necessary change management for successful eLearning has not been created.

The relationships between the themes were built utilising the reasoning statements produced by the focus group participants and the feedback of the verifiers.

The **integrated digraph** is graphically represented in Figure 4.7.

Figure 4.7: Integrated Digraph



Integrated Digraph: Reasoning statements

Shared meaning and common understanding of the eLearning concept (1) between all stakeholders will create impetus in business to put in place the right support **infrastructure** (2) in terms of people and technology. The common understanding between the stakeholders regarding the holistic eLearning concept will facilitate what message to **communicate** (3) to which target population, using the right medium at the right time.

The quality of the **technology infrastructure** (5) will reflect the expectations of business that eLearning can deliver on the agreed promises (1). eLearning in the mindset of line management is measured in terms of alignment to strategy, return on investment and net present value, and the degree to which it can be successfully implemented. Therefore, if there is shared understanding about the value of the infrastructure to business, improvement of the infrastructure will result. Alternatively, a negative view will result in the status quo being maintained or a degeneration of the infrastructure.

A common understanding of the business problem (1) and the related eLearning interpretations will lead to more focused learning solutions that are business centric and therefore will add increased value to **business performance** (6). The relationship between shared meaning (1) and **change management** (8) is of equal strength as there has to be some level of common understanding to create the change process, but, the change process also creates shared meaning. Therefore no link is indicated on the digraph.

If there is no **support in place for learners and managers** with regards to eLearning (2), their **participation** in the eLearning solution will be inhibited (4) as they will become demotivated due to unnecessary technical challenges.

If the message regarding eLearning has been correctly **translated** (3), resulting in the stakeholders understanding why they are participating and 'what is in it for them' (3), they will strive to create the necessary **support infrastructure** (2).

Communication (3) to the learners regarding why the eLearning infrastructure is not stable, will help to mitigate or reduce the risk of **non-participation** (4). The relationship between communication and **change** (8) is of equal strength due to communication forming part of the bigger change management process. Therefore no link is indicated. If learning solutions are **business centric** (6), business will have the impetus to create the necessary **support infrastructure** (2). If the **business problem** was understood correctly (7), Business and the Learning and Development Department would be able to articulate what eLearning should be in their context (1). A clearly linked value contribution of eLearning to business (7) will result in line management providing the right support infrastructure for eLearning (2). If the business measures are clearly defined and understood (7), the learning solutions will focus on solving the business problem (6).

Change management (8) creates significance for the stakeholders in the eLearning context. If there is no **business significance** to the management of the learners, there will be no organisational impetus to create **support infrastructure** (2) or an appreciation for the **technical instability** of the eLearning platform (4). The involvement and commitment created by the change management process will also facilitate action to put in place the right competence to be able to cope with the instability of the eLearning platform. Change management could also facilitate the creation of a framework and mechanism within which Business and the Learning and Development Department can define a **common value for eLearning** (7).

Based on the relationships defined in the integrated digraph, the **driver problem** was identified as:

Theme 1: There is no shared meaning regarding eLearning: implementation, business value and terminology.

This driver problem was used as the basis from which to work in order to define the system in focus.

4.5. Research Objective 2: To design the systems dynamic model that represents the driver problem

The following subsidiary questions were asked in order to realise the research objective:

1. What is the system in focus?
2. Who are the main stakeholders of the system in focus?
3. What are the measures of performance?
4. What are the co-producers for each of the measures of performance?
5. How can the elements of the system in focus be represented systemically?

Day 2 and 3 were held consecutively. The focus group participants started with Research Objective 2 and completed the process with Research Objective 3. Three focus groups participated in this part.

4.5.1. What is the System in Focus (SIF)?

This question was asked to determine a system that represents the driver problem. The successful implementation of the system will influence the driver problem. Correcting the driver problem will change the environment within which eLearning is implemented. In order to capture the shared meaning and mutual understanding between the Focus groups on Day 1, Focus group 1 and 2 and Focus groups 3 and 4 were requested to co-develop two SIF statements. Each of the two focus groups produced an SIF.

Focus groups 1 and 2

An SIF is a system that has a shared mental model of eLearning and appreciates its contribution to business performance results.

Focus group 3 and 4

An SIF is a system that will have established ownership, driving learning as a business priority, including all role-players, allowing effective communication, which requires change management and thereby enabling the integration of eLearning into Absa's learning strategy.

The integrated digraph formed the basis from which the SIF was designed.

After presenting the integrated digraph to the three focus groups participating in Day 2, they were requested to create an integrated SIF. The integrated SIF formed the basis for the next step in the process, which is designing the measures of performance. The integrated SIF was stated as:

A system in focus is a system that will **entrench** a shared mental model of eLearning and its **contribution** to **enhance** business performance.

During the session the behaviour of the focus group participants was recorded in order to collect evidence for **Research Objective 4**[12].

[12] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

Observation feedback as provided by the observers

Three new focus groups were formed. The participants in the new groups were selected from the people who participated in Day 1 to ensure that they would have the necessary common understanding from which to progress in Day 2. The participants organised themselves into groups, taking care to not include people with direct reporting lines in the same groups. A balance between Business and the Learning and Development representatives was also required.

Focus group 1 authorised the same natural leaders from the first session to take up their roles. The group was functional, with only two group members contributing to a limited extent. Although the group was interrupted by two late arrivals, they accommodated them and allowed them the space to reach an understanding of the here and now. In **Focus group 2** the natural leader from Day 1 was authorised by the group to take up the leadership role despite her late arrival. The results of this exercise may well be skewed as a result of the strong influence of the leader, lack of participation amongst the group and lack of encouragement to contribute.

Observation feedback as provided by the observers, continued

Focus group 3 functioned optimally during this session, with no single member adopting the leadership role. The variety of interaction that unfolded in this group resulted in true dialogue and therefore a collective view was captured. The participants appeared to be more comfortable and responsive to instructions in comparison to the session on Day 1. Their levels of responsiveness appeared to be higher, perhaps as a result of their exposure to the process in session one. The change in the group structure resulted in renewed levels of energy and participation. Certain members from the first session, who did not actively participate, took up their roles and actively participated in Day 2.

In order to create a deeper understanding of the SIF, the stakeholders of the SIF were analysed.

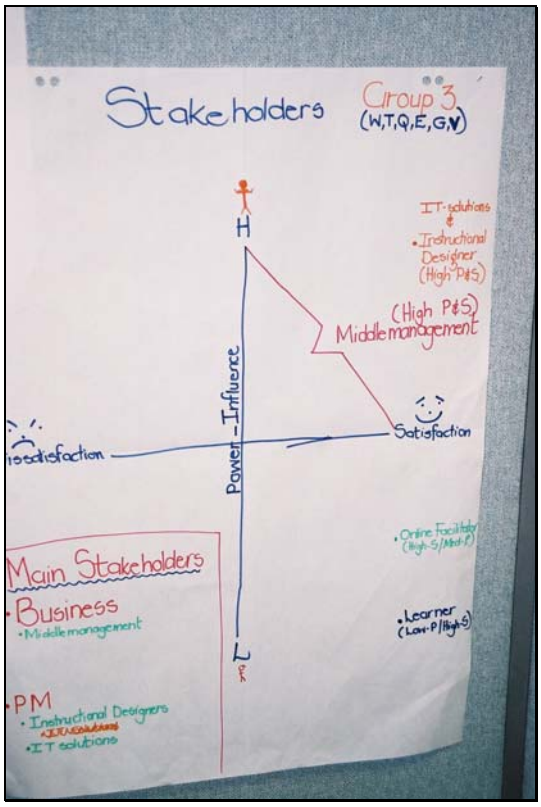
4.5.2. Who are the main stakeholders of the System in Focus (SIF)?

The main stakeholders are the people in power who can successfully create and implement the environment in which the SIF will be implemented. Each of the three focus groups was required to determine the two main stakeholders of the SIF. The criteria for determining the main stakeholders were their level of power and satisfaction.

Each group firstly made a list of possible stakeholders. They then mapped the stakeholders in terms of power and satisfaction on a matrix. This mapping provided insight into their decisions as to which stakeholders was more important than others.

Figure 4.8 represents an example of a stakeholder mapping.

Figure 4.8: Stakeholder mapping



The two stakeholders identified by **Focus group 1** were:

- Business – eChannels Head
- eLearning Sponsor – Head of Learning and Development.

Focus group 2 went through two cycles of stakeholder identification. The first stakeholders that were identified were:

- Instructional Designers; and
- learners.

After starting with the identification of the co-producers (during the next phase), they realised that the stakeholders that they had identified did not have enough power over the measures to effect change. They went back to the identification of the stakeholders and subsequently identified the following two stakeholders:

- People Management (Learning and Development and PM Account Executives); and
- Strategic Business Unit or Group Specialist Function management.

The two stakeholders identified by **Focus group 3** were:

- Middle Management; and
- Instructional Designers.

During the session, the behaviour of the focus group participants was recorded in order to collect evidence for **Research Objective 4**[13].

Observation feedback as provided by the observers

In **Focus group 1**, two late arrivals influenced the group by seeking the ideas and opinions of the other group members, and hence challenged the natural leader's role. Therefore participation in the group was high. In **Focus group 2** the leadership role shifted from one dominant leader to a shared role between two members. This resulted in a higher level of participation within the group, as the group authorised the new leadership role-player. The outcome of this exercise was more reflective of the collective view. **Focus group 3** strengthened their team relationships and maintained their high energy and synergy. Despite the consensus in the group during the introduction session that accountability resides with both Business and the Learning and Development Department, the allocation of accountability that was required in this exercise was incongruent. The participants tended towards identifying parties other than line-management (themselves) to take accountability for eLearning. The variety of the interaction was observed to be well balanced and natural, although four to five participants chose to only passively participate.

The stakeholder mapping process informed the design of the measurements of performance.

[13] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

4.5.3. What are the Measures of Performance (MOPs)?

Each of the focus groups had to identify one **MOP per stakeholder**. The criterion for the measure was that by improving on a specific measure, it would lead to increased satisfaction of the relevant stakeholder.

The following MOPs were identified for the stakeholders of **Focus group 1**:

- Business – **level of profitability through sales and services**.
- eLearning Sponsor – **successful completion of eLearning courses (level of participation)**.

The following MOPs were identified for the stakeholders of **Focus group 2**:

- People Management (Learning and Development and Account Executives) – **level of utilisation of the eLearning platform**.
- Strategic Business Unit or Group Specialist Function management – **level of productivity**.

The following MOPs were identified for the stakeholders of **focus group 3**:

- Middle management – **level of achievement of business performance**.
- Instructional designers – **level of learner satisfaction achieved**.

During the session, the behaviour of the focus group participants was recorded in order to collect evidence for **Research Objective 4**[14].

Observation feedback as provided by the observers

In Focus group 1, the leadership role shifted and the natural leader took up a more passive role. The levels of participation in the group were observed to increase as a result of this new leadership role-player. The level of encouragement and involvement of all members was increased, resulting in increased dialogue and a higher functioning group. In Focus group 2, the shared leadership role shifted to a new leader, which resulted in new members participating in the process. In Focus group 3, the synergy was maintained and they displayed a passion for the subject matter at hand.

The participants appeared to have different levels of understanding of human behaviour. Certain assumptions made by the participants reflected a lack of understanding of the systemic impact of the human response to change and the reality of working with resistance to change. For example, in one group, the single motivator of human behaviour was identified to be financial incentives. This observation is believed to demonstrate the diversity of the participants in the group in terms of levels of work and emotional maturity. Overall, the levels of energy and participation increased through changes in the leadership role-players and their associated leadership styles.

Various elements impact on a measure of performance. These elements are co-producers.

[14] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

4.5.4. What are the co-producers for each of the Measures of Performance (MOPs)?

In order to understand the elements that contribute to the success or failure of the MOP, co-producers are identified. These co-producers are specific variables that contribute to the performance of a measure. The focus groups identified the co-producers for each of the two MOPs that were identified in the previous step.

Focus group 1

The co-producers for **MOP1**: Level of profitability through sales and services touched on topics such as training, recruitment, resourcing, motivation and productivity. The detailed co-producers are listed in Table 4.4.

The co-producers for **MOP 2**: eLearning Sponsor – successful completion of eLearning courses (level of participation) included topics on resourcing, competence, course content, technology infrastructure, significance of eLearning and business requests for eLearning. The detailed co-producers are listed in Table 4.4.

Focus group 2

The co-producers for **MOP 1**: Level of utilisation of the eLearning platform was formulated around topics on learner interest and awareness, eLearning education, support content relevance and access to eLearning. The detailed co-producers are listed in Table 4.4.

The co-producers for **MOP 2**: Level of productivity included topics on participation, learning, ergonomics, training time, flexible delivery, availability of the eLearning platform and competence. The detailed co-producers are listed in Table 4.4.

Focus group 3

The co-producers for **MOP 1**: Level of achievement of business performance touched on topics regarding competence, commitment, motivation support and the application of learning in the work environment. The detailed co-producers are listed in Table 4.4.

The co-producers for **MOP 2**: Level of learner satisfaction achieved included topics on facilitation, motivation, competence, learning content, significance of eLearning, technology infrastructure and support. The detailed co-producers are listed in Table 4.4.

Table 4.4: Identified stakeholders, MOPs and co-producers as identified per focus group

Focus group	Stakeholder	Measure of Performance	Co-producers
Focus group 1	Business – eChannels Head	1. Level of profitability through sales and services	• Number of quality training courses • Quality of coaching • Level of competence • Quality of talent recruited • Number of quality resources • Availability of operating resources /infrastructure • Level of internal motivation • Level of quality service • Level of incentive • Number of products sold • Number of transactions successfully concluded
	eLearning sponsor – Head of People Management	2. eLearning sponsor – Successful completion of eLearning courses (level of participation)	• Quality of resources in the Design and Development Department[15] • Level of competence of Instructional Designers • Quality of appropriate course content per target population and business need • Level of quality of technological infrastructure • Level of marketing/training to empower learners to use eLearning • Level of competence of learners to use the eLearning platform • Level of significance of eLearning for the learner/business performance • Shared mental model of eLearning • Level of clarity in communicating available courses per target population • Level of clarity in marketing and introducing the eLearning platform • Level of clarity of the learning process to learner • Number of business requests for eLearning courses

[15] Design and Development is part of the Learning and Development Department.

Table 4.4: Identified stakeholders, MOPs and co-producers as identified per focus group (continued)

Focus group	Stakeholder	Measure of Performance	Co-producers
Focus group 2	People Management	1. Level of utilisation of the eLearning platform	• Amount of learner interest • Level of eLearning education • Level of management support and coaching • Level of awareness of new interventions • Level of applicability of the content • Level of awareness of the platform • Quantity of learner access • Level of system stability • Level of technical support • Hardware and software capability
	Business unit/Group Specialist Function Management	2. Level of productivity	• Level of participation in training • Quality of conducive learning ergonomics • Availability of schedules of training time • Flexibility of training delivery • Relevant availability of training tools • Level of competence achieved • Quality of staff employed
Focus group 3	Middle Management	1. Level of achievement of business performance	• Level of commitment of managers • Level of competence of middle management • Level of competence of learners • Degree of learner application • Degree of learner motivation • Level of technical support • Level of human support • Level of understanding of value of eLearning courses by middle management
	Instructional Designers	2. Level of learner satisfaction achieved	• Availability of online facilitation • Level of learner motivation • Level of learner application • Level of learner competence • Applicability of the content • Level of significance to the learner • Level of participation • Level of creativity within the learning design • Availability of the platform • Availability of technical support • Stability of the platform

During the session the behaviour of the focus group participants was recorded in order to collect evidence for **Research Objective 4**[16].

Observation feedback as provided by the observers

*Following lunch, the leader of **focus group 1** was absent for a period. This negatively impacted on this group's dynamics and levels of energy, resulting in the previous natural leader taking up her role to rescue the situation. The new leader in **focus group 2** maintained his influence over the group from the previous exercise. He initiated the move of the group to create a collective workspace, which sustained the levels of participation to achieve the objectives of the exercise. During this exercise, the members of **focus group 3** asked many questions and started to spiral in their thought processes. However, they achieved the objectives of the exercise and ensured collective input.*

There appears to be a fundamental gap between the methodologies used by L&D specialists in People Management versus the business understanding of human behaviour. Therefore business perceives the "value of money" as the driver of human behaviour and reduces the importance of the individual in the story. Overall the group appeared to have reduced levels of energy after lunch. The researcher and the facilitator took cognisance of this and decided to close the session following this exercise.

The MOPs and co-producers were used as input to design the systems dynamic model representing the system in focus.

[16] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

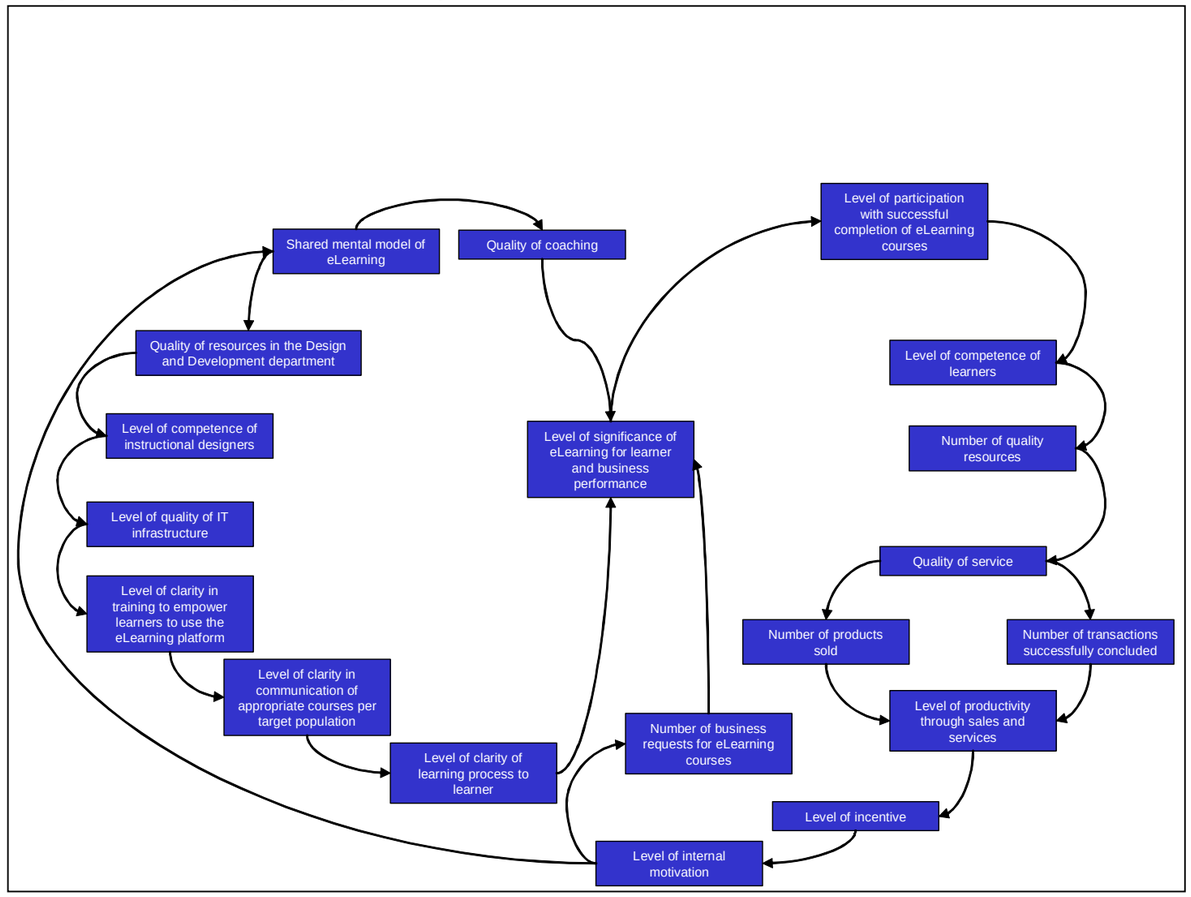
4.5.5. How can the elements of the system in focus (SIF) be represented systemically?

The **systems dynamic model** is a 'picture' of the deeper structure of the problem or phenomena (in this case the SIF) at hand being investigated. In order to create this model, the SIF was determined. Based on the SIF, the stakeholders with the most influence in that system were determined. Thereafter the MOPs and the co-producers were identified. A **systems dynamic loop** was drawn for each MOP and its relevant co-producers. Each focus group therefore had two systems dynamic loops. The loops were then integrated into a systems dynamic model illustrating the systemic interaction between elements of the SIF.

In the case of each of the focus groups, the illustrated systems dynamic model was followed by a systemic story as written by the focus group participants. The systemic stories were requested from the focus group participants to ensure that the story was told according to the context of the participant and not that of the researcher. The stories also serve to extend the understanding of the thought processes within each of the focus groups.

Figure 4.9 represents the systems dynamic model as designed by Focus group 1.

Figure 4.9: Focus group 1: Systems Dynamic Model



Group 1: Systems Dynamic Model Story

*If we have a system that **entrench a shared expectations** of eLearning and its contribution to enhance business performance, we will then have a **shared mental model of eLearning**. This shared mental model will improve the quality of resources in the Design and Development Department. If the **quality of the resources** is improved, the level of **competence** of the instructional designers will improve.*

*If we have a shared mental model of eLearning, the **quality of the level of IT infrastructure** will improve. This will mean that there will be a level of **clarity in marketing and training** messages to empower the learners to use the eLearning platform. This will also be helped in that the level of clarity in **communicating** appropriate courses per target population will be met.*

*Because the level of **competence** of the instructional designers is improved, the level of clarity of the learning process for the learner will become clear and succinct. This will immediately create a level of **significance of eLearning** for the learner and the business performance. This will influence the **level of participation** with successful completion of eLearning courses, thus increasing the level of competence of the learners and improving the number of quality resources.*

***Quality resources** will lead to quality service that will be measured in two ways:*

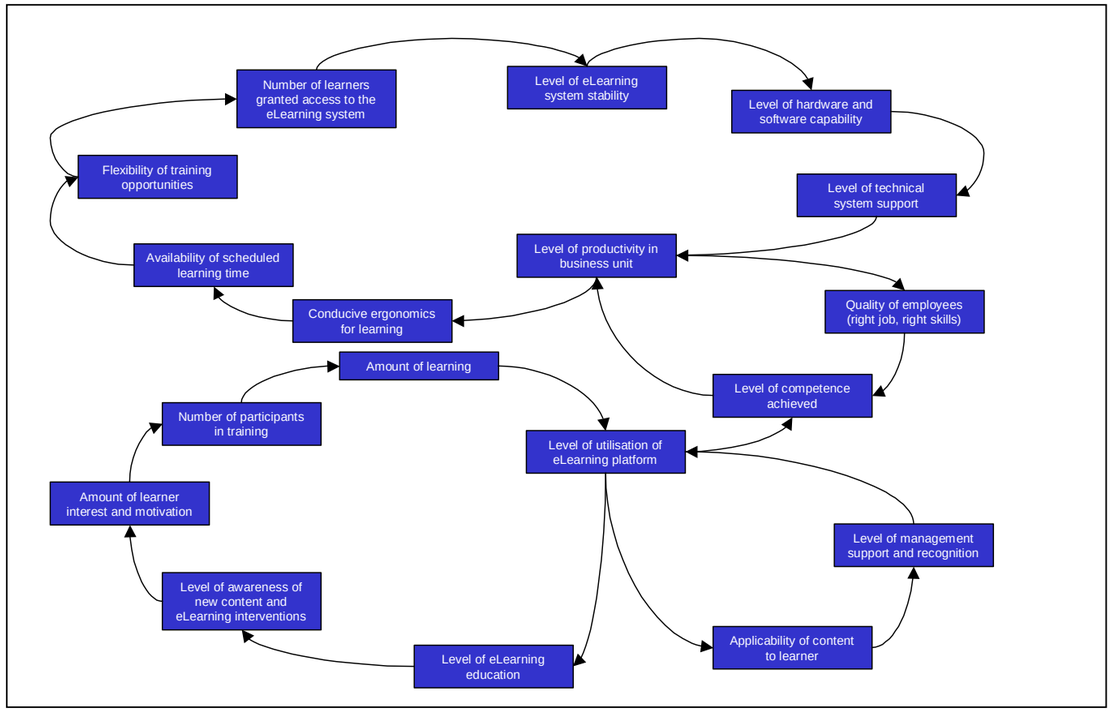
- *number of products sold; and*
- *number of transactions successfully concluded.*

*These two measures will impact on the **level of profitability** through increased sales and services. Having a shared mental model will also help in the **quality of coaching** to show the level of significance of eLearning for learners and business performance.*

*Due to the level of **internal motivation** shown because of the level of profitability through sales and services, the link is directly made to the shared mental model of eLearning, because the learners **know what is in it for them and what is in it for the business***
(Story as told by the Focus group participants: July 2004).

Figure 4.10 represents the systems dynamic model as designed by Focus group 2.

Figure 4.10: Focus group 2: Systems Dynamic Model



Group 2: Systems Dynamic Model Story

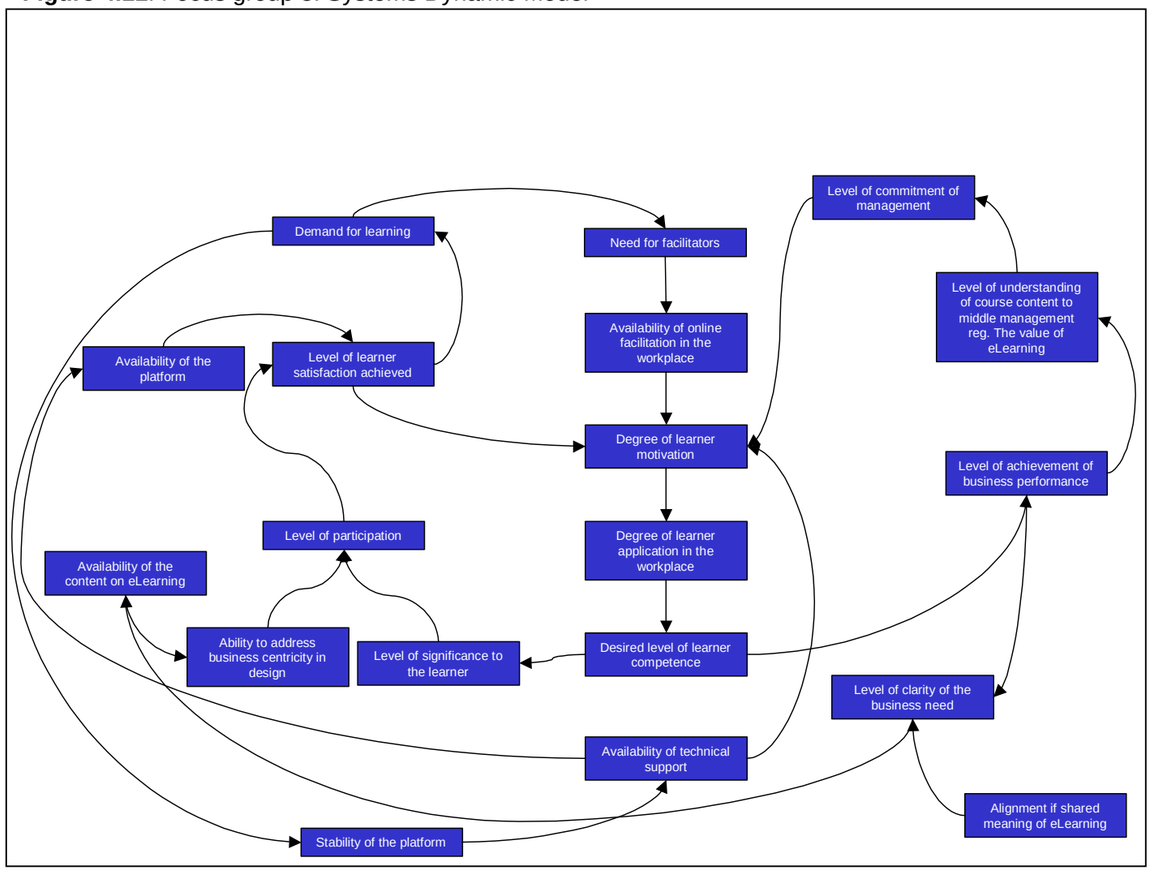
*A departure point to **leverage eLearning** as a contributor to improve business performance, is an awareness and educational effort that creates a shared mental model around eLearning and Business. Coupled to this, a technology infrastructure and **support** system needs to be in place.*

*Given the above, **utilisation of eLearning** is directly linked to the application of the content; from an organisational, business unit and learner perspective. Linking of training needs to meet SBU **strategic objectives** and goals will create this applicability for the SBU and linking of training to **performance management** will create this for the learners. Once the applicability and link to the business and/ organisational goals and the learner is in place, the learners will see the **'what's in it for me',** as well as **the management who will provide more support**, encouragement and enable learners, both from an **ergonomic** and system access point of view, as well as **motivational** aspects.*

*Ultimately, this will lead to **participation in new training** which, when directly linked to Business unit or organisational goals and performance management, will **increase productivity** and thereby close the leverage point that eLearning will be a contributor to improved business performance* (Story as told by the Focus group participants: July 2004).

Figure 4.11 represents the systems dynamic model as designed by Focus group 3.

Figure 4.11: Focus group 3: Systems Dynamic Model



Group 3: Systems Dynamic Model Story

*If there is **alignment between the stakeholders and shared meaning** regarding eLearning and Business, it will lead to a level of **clarity of the business needs**, which will, in turn, enable the instructional designers to address the business centricity of the design. This will lead to a **higher participation**, as we will address the need of the learner, leading to higher learner satisfaction. Learner **satisfaction** will lead to a higher demand for learning. The **higher demand** for learning will lead to an increased **need for facilitation** which leads to an increased need for online facilitation time. This will lead to a **higher degree of learner motivation** back in the workplace. This will mean a higher degree of **learner application** in the workplace. The increase in learner application will result in the desired level of **learner competence**. This will increase the level of **achievement** of business performance that will, in turn, increase the level of understanding of **course content** to middle management with regards to the value of eLearning. This will lead to a higher level of **commitment of management** who will, in turn, influence learner **motivation**. The demand for learning will influence the **stability of the platform** because the number of learners will increase. This will demand a higher level of availability for technical support that, in turn, will influence the availability of the platform. It will further lead **to learner motivation and satisfaction**.* (Story as told by the Focus group participants: July 2004)

During the design of the systems dynamic models, the behaviour of the focus group participants was recorded in order to collect evidence for **Research Objective 4**[17]. The design of the systems dynamic models was **started on Day 2** and **completed on Day 3**. The group behaviour over the two days is reported separately as the dynamics between the participants changed.

Observation feedback as provided by the observers

Day 1:

Focus group 1 *appeared to battle with the task and was not able to settle down and function effectively. The natural leader was visibly frustrated with the situation and demonstrated defensive behaviour. However, due to the manner in which some of the members of the group challenged and questioned the process, the group was still able to progress. Both leaders in* ***Focus group 2*** *appeared to have difficulty with the task and displayed similar defensive behaviour as observed for Focus group 1. The facilitator identified the need to assist them with the process and thereby enabled the group to proceed with the task. At one point, the group revisited their stakeholder analysis and was then able to progress, which illustrates the rigorousness of the process. As a result of the deep level of thought-processing that was taking place in* ***Focus group 3*** *in the previous session, the group continued to function optimally in this exercise. The group engaged in high levels of constructive challenging, questioning and generating ideas.*

[17] **Research Objective 4 – Question 1**: How did the behaviour of the individuals participating in the research process influence the research inquiry?

Observation feedback as provided by the observers, continued

Day 2:

The group members remained in the same groupings as the previous day. One of the members from ***Focus group 3*** *did not return on Day 3. Due to the levels of frustration that occurred in* ***Focus group 1*** *the previous afternoon, the natural leader took it upon herself to reorganize some of the work generated by the group. When the rest of the group arrived, it appeared that they had a sense of relief that someone had managed to sort out the task for them. However, both the natural leader and the new leader that had emerged on Day 2, spent considerable time ensuring that each of the group members had shared meaning and was in agreement with the new outcome of the task. The facilitator provided the group with their next instruction; combining the systems dynamic loops to create the systems dynamic model. Again, due to the complexity of the task, the defensive behaviour patterns reemerged. One member of the group adopted the harmonising role and facilitated the session to ensure the group meets its objectives. As a result, the team managed to complete the task with a moment of celebration. When* ***focus group 2*** *arrived, they appeared to have a renewed willingness to participate and displayed high levels of energy. Although it was apparent that they were battling with the task, it appeared that they were eager to work at the challenge. The participation level reached its peak in this session. The group progressed well, but not at the same pace as Focus groups 1 and 3. As a result, they had increased pressure to complete the task before the end of the session.*

Observation feedback as provided by the observers, continued

During the tea break, the natural leader took it upon herself to reorganise some of the work generated by the group. When the group returned, the leader shared the new outcome of the task with them. The energy levels in the group were negatively influenced and the group appeared to loose interest in the exercise.

After the group received the final instruction for the session - combining the systemic dynamic loops to create the systems dynamic model - they demonstrated fatigue and frustration. The group was not able to progress at all, and asked for help from the facilitator. As a result of the increased involvement of the facilitator in assisting them with the process, the group did manage to complete the exercise. However, it is questionable whether they would have managed to do this without the intervention of the facilitator.

*Although **Focus group 3** was short of one of its members, the synergy within the group continued from the previous day. The level of thought-processing from the previous day negatively influenced the levels of energy in the group. However, their passion for the subject matter was still evident and the levels of dialogue and participation remained high. By Day 2, this group had formed into a healthy, functioning team and was therefore able to manage the complexity of the three-day session.*

Observation feedback as provided by the observers, continued

It was apparent that in both Focus groups 1 and 2, the members were spiraling in the "storming" phase of the Groups' development, and hence were not functioning as effectively as earlier in the process, on Day 2. ***Focus group 2*** *appeared to have experienced greater difficulty with the tasks over the three days.*

Given the complexity of this exercise, the interpersonal dynamics ***within Focus groups 1 and 2*** *presented a challenge, whereas Focus group 3 applied their minds collectively to the task as a high performance, self-organised team. Due to the difficulty experienced by the groups, the facilitator continually visited each group to check their process. At no point did she influence the content, but rather guided the process by asking questions. Due to the level of complexity of the task and the groups' requests for guidance in terms of the process, the researcher conferred with the facilitator at times. The observers are of the opinion that she did not influence the content at any time. The approach was to ask each focus group to "tell their stories" to assist them in checking their own approach.*

On 18 July 2003, the content, as produced by the focus group participants, was **presented to a group of verifiers**. The main objective was to **validate and audit** the data produced and analysed by the focus group participants.

The second part of the systemic inquiry process was explained to the verifiers, the data and outputs produced were presented, and then the essence of the verifier comments was captured.

Verifier comments on the results produced by each focus group

Focus group 1
- *No breakdown in logic can be found.*
- *We* [the verifiers] *can identify ourselves best with the story presented by this group.*

Focus group 2
- *The SDM and the story told cannot be compared to each other. It almost seems as if the writer of the story tells his/her own story and not the story of the group.*
- *There are specific places where the logic described cannot be followed.*
- *There is no apparent depth in story told.*

Focus group 3
- *Clear differences in the insights and the contributions of the focus group participants can be seen.*

Generic comments from the verifiers

The following comments were made about the total picture that was verified:

- *clear differences in the insights and the contributions of the focus group participants can be seen*; and
- *There are common messages and meanings between the results produced by the focus groups.*

As a closing to the verification process, the verifiers were also requested to **comment on their participation in the process** in terms of the:

- value of the process; and
- personal value derived from their participation in the process.

The following **positive process comments** were made:

- *I like the comprehensiveness of the process and was especially impressed by the final products and the insight it seemed to have created with all the participants.*
- *The process was logical and methodological. The process accommodated off-the-cuff comments.*

- *I felt that the process was scientific and defensible in terms of data collection for the purpose of the study.*
- *I think it would be interesting to explore the impact on the individuals involved regarding their own mental models around learning.*
- *A sound research model.*

The following **constructive comments** were made about the process:

- *I am still concerned about the fact that all the parties identified 'shared meaning' as a common driver.*
- *The process might have been intimidating to some participants whose knowledge on the subject was limited.*

The **comments below were made about the personal value** that the verifiers experienced through the process.

- *I enjoyed the mental challenge and cognitive interaction.*
- *It sparked off a reading spree into areas such as eLearning return on investment.*
- *I enjoyed the view we had on what the learners experienced.*
- *I have learnt a lot from the process. It challenged my assumptions.*
- *I realise that bigger systems issues influenced the issues around eLearning.*
- *The whole exercise confirmed to me that all people management practices have to be implemented and driven by business strategy and context.*
- *The conversations affirmed many of my intuitions regarding trends and future requirements in the field.*
- *It assisted me in my own journey of challenging assumptions, practices and mental models in the discipline of learning.*
- *I also thoroughly enjoyed the inputs of the other verifiers. It was very stimulating and interesting. Thank you!*

4.6. Integrated Systems Dynamic Model

Based on the data produced by the focus group participants and the feedback of the observers, moderator and verifiers, the systems dynamic models were integrated and a single leverage point was established.

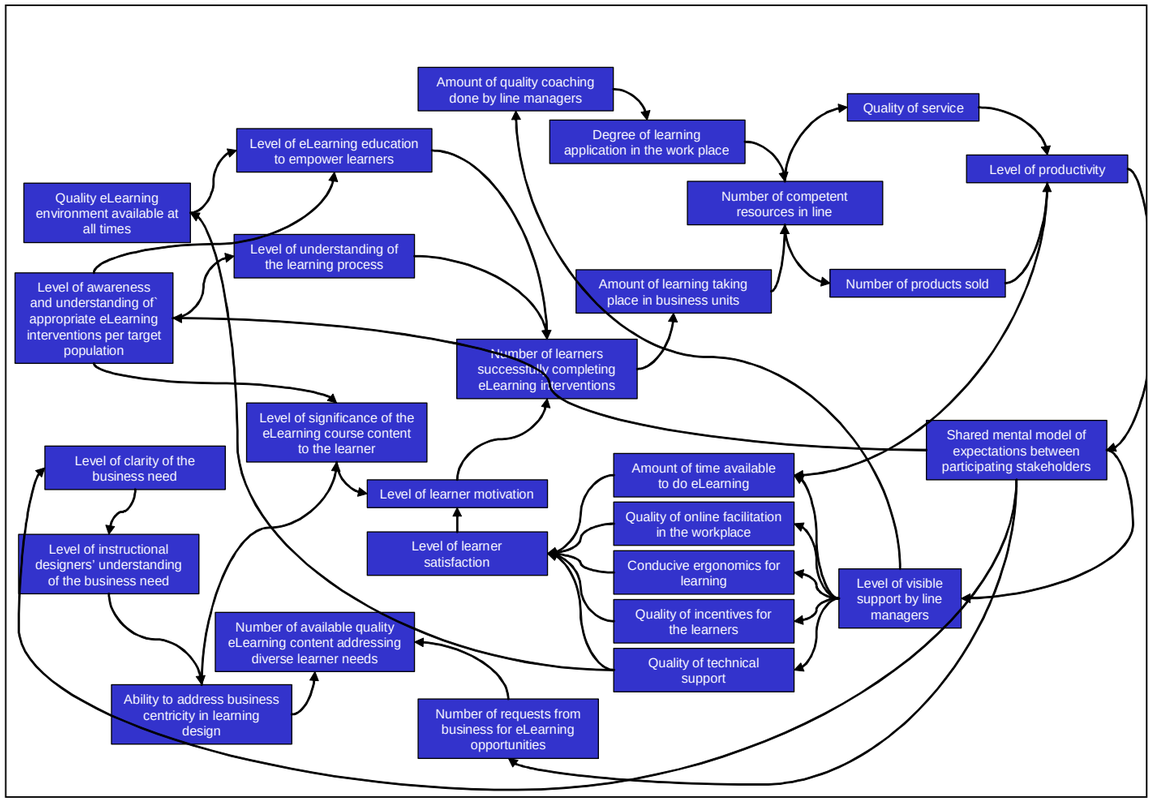
Ten **common themes** were identified from the three systems dynamic models:

1. Learning;
2. Shared meaning/significance of eLearning;
3. eLearning;
4. Technology;
5. Design and Development;
6. Content;
7. Business;
8. Learners;
9. Support; and
10. Communication.

The relationships between the themes were built, utilising the stories produced by the focus group participants.

Twenty-eight statements were re-written and utilised to create the new integrated systems dynamic model. The **integrated Systems Dynamic Model** is graphically represented in Figure 4.12.

Figure 4.12: Integrated Systems Dynamic Model



The integrated systems dynamic model story

The starting point of the story is a **shared mental model** of expectations between the participating stakeholders (Business and Learning and Development) regarding the contribution of eLearning to business performance. The shared mental model influences four elements on the SDM:

1. Level of **visible support** of the line managers;
2. Level of **clarity of business needs** to all relevant stakeholders;
3. **Number of requests** from business for eLearning opportunities; and
4. Level of **awareness and understanding** of appropriate eLearning interventions per target population.

The **level of support from the line managers** becomes visible through elements such as the quality of incentives available for the learners; provision of time to do eLearning during work hours; quality of online facilitation in the workplace; conducive ergonomics for learning; provision of quality technical support; and provision of quality coaching by line managers. The combination of the six factors above leads to an increased level of learner satisfaction. If the learners feel good about their achievements and the recognition thereof, this will increase their motivation to participate in eLearning courses.

The increased quality of **technical support** leads to the availability of twenty-four hours a day, seven days a week quality eLearning environment. Having such a stable, accessible environment could allow an increased number of learners in Absa access to learning through the provided eLearning courses. An increased level of clarity of the business needs will increase the level of understanding (or shared meaning) that the instructional designers have of the topic at hand. The increased understanding will, in turn, increase the ability of the instructional designers to address business centricity in their designs. This element, together with the increased number of requests from business for eLearning opportunities, will lead to richness in the availability of flexible quality eLearning content addressing diverse learner needs. The availability of quality eLearning opportunities will increase the potential number of learners completing eLearning interventions.

The increased level of awareness and understanding about eLearning interventions available for specific target populations and the business centricity of the learning design, will increase the level of significance of the eLearning course content to the learner. An increased level of significance will increase the internal motivation of the learner, which will, in turn, enable the successful participation of learners in eLearning interventions.

The increased level of awareness and understanding will further lead to an increased level in eLearning education empowering the learner, as well as ensuring an enhanced understanding of the learning process. These two elements may both lead to an increase in the number of learners successfully completing eLearning interventions.

The **completion of eLearning courses** increases the amount of learning taking place in the business unit. The learning, together with the quality coaching by the line managers, increases the degree of learning application in the workplace and thus increases the number of competent resources in line. The more competent resources will provide improved quality of services and sell more products. The successful conclusion of these transactions will lead to an increased level of productivity – improving the business results. With more money available, it can increase the quality of incentives for the learners.

The story closes with the start in mind. Every time the systemic route is completed, the shared mental model of eLearning contributing to business performance is enriched and confirmed, leading to positive reinforcement of the phenomenon.

4.7. Research Objective 3: To identify the leverage point within the systems dynamic model (SDM)

The following subsidiary questions were asked in order to realise the research objective:

1. Which of the co-producers influence the systems dynamic model the most?

In order to identify the co-producer/s that impact the SDM the most, the starting point of the story is identified.

Focus group 1: The starting point of the story is a shared mental model for eLearning.
Focus group 2: The starting point of the story is the awareness and education that will create a shared mental model regarding eLearning and Business.
Focus group 3: The starting point of the story is an alignment between the stakeholders and shared meaning regarding eLearning and Business.

The three leverage points that were identified are similar in that they address how people think about eLearning and Business. The recurring message is about reaching a **common understanding between stakeholders**. In this study this implies that both **Business** and **Learning and Development** must have the same departure point and end result in mind for the eLearning intervention. There must therefore be an agreement between the expectations from all stakeholders

Based on the integrated systems dynamic model, the starting point of the story is a **shared mental model** of expectations between the participating stakeholders (Business and Learning and Development) regarding the contribution of eLearning to business performance. The leverage point identified from the systems dynamic model is:

A shared mental model of expectations between the participating stakeholders

In this study the shared mental model is about how eLearning can improve business performance. The stakeholders represented in this study are:

- Business: Operational management and employees; and
- Learning and Development: Operational management and instructional Designers[18].

Thus, the leverage point for improving business performance through eLearning is a **shared mental model of expectations between the participating stakeholders** with regards to how the eLearning solution will contribute to business results. **In addition the systems dynamic model also highlights the requirements that are necessary from a Business point of view to capitalize on the eLearning intervention**. Examples of these requirements are 1) support from operational management and 2) a stable technology infrastructure.

During the design of the integrated systems dynamic model and the identification of the leverage point, **the creation of a story articulates the shared mental model of the participants**. In the story, it is as important to look at where there are relationships between co-producers, as it is to look at where there are no relationships between co-producers.

Both Business and Learning and Development agree that that the eventual outcome that they want to achieve is an increased level of productivity produced by an increase in the quality of service and the number of products sold. This leads to the creation of income for the specific Business Unit. In the systems dynamic model, the stakeholders (participating in the study) agreed that learning in general contributes to the competence of the resources in Business. These resources enable the increased productivity through the quality service in products sold.

The competence of the resources are build through formal eLearning interventions taking place, as well as more informal coaching done by operational managers. The coaching should be done in order to ensure that the theory, learnt via the eLearning intervention, is practically transferred to

[18] A detailed breakdown of the sample participating in the study is available in Chapter 3.

and implemented in, the working environment. Prerequisites for the positive completion of the eLearning interventions are that there should be a:

- stable technology infrastructure enabling a quality eLearning environment at all times.
- clear understanding of how to utilise the eLearning infrastructure.
- clear understanding of the learning process.
- high learner motivation.

The quality eLearning environment is built through the stable technology infrastructure as well as courses that address business centricity in learning design.

Learner satisfaction is a key point for increasing learner motivation. The satisfaction of learners are created through different actions including allocation of time to participate in eLearning interventions, availability of online facilitation, conducive ergonomics for eLearning, quality incentives for learners as well as the right level of technical support. These actions are managed and executed by line managers[19] (operational management).

From the story it can be seen that the influence that the operational manager has over the success or failure of the eLearning is intervention is significant. While executive management can support the creation of the environment, it is up to the operational managers to make the environment real.

Although they were against eLearning at the start of the process, the operational management as well as the team leaders agreed that if they had a clear picture or shared mental model on what they could expect from eLearning and what the eLearning implementers expected from them, they would be more supportive of the interventions. They also stated that they came to an understanding of how eLearning contributes to business performance through the conversations during creation of the systems dynamic model.

Therefore, while the research question asks for a leverage point, it is only one aspect of the answer to the question of how eLearning contributes to business

[19] In Absa operational managers are sometimes referred to as line management.

performance. The second level of the answer lies in the story of systems dynamic model illustrating that eLearning contributes to competence of individuals. This competence empowers the individuals to increase their productivity.

Once Business and Learning and Development starts going through the constructive cycle of the systemic model repeatedly, they will continuously build the **shared mental model of expectations**. This constructive cycle will build on the:

- Level of **visible support** of the line managers;
- Level of **clarity of business needs** to all relevant stakeholders;
- **Number of requests** from business for eLearning opportunities; and
- Level of **awareness and understanding** of appropriate eLearning interventions per target population.

The execution of the research methodology including the design of the systems dynamic models and the identification of a leverage point were observed throughout.

4.8. Research Objective 4: To reflect on the effect that the behaviour of the individuals, participating in the research process, has on the research inquiry

The following subsidiary questions were asked in order to realise the research objective:

1. How did the behaviour of the individuals participating in the research process influence the research inquiry?
2. What effect did the process have on the individuals participating in the research inquiry?

Data for this research objective was collected from the observers, moderator, verifiers and focus group participants.

The data from the observation report[20], post focus group debriefing with the observers and the moderator, and the interview with the verifiers, was utlised

[20] The original observation report as provided by the Observers is attached as **Appendix S**.

to determine the effect of the behaviour of the focus group participants on the process. The data collected from the post focus group questionnaire was used to determine what effect the process had on the individuals participating in the systems inquiry.

The debriefing discussions held with the moderator and the observers, as well as the verifier comments, were documented as part of the process in providing data for the specific research objectives.

4.8.1. How did the behaviour of the individuals participating in the research process influence the research inquiry?

The participants within the focus groups influenced each other as well as the outcome of the conversations that are documented as part of the process. It was therefore important to observe how the behaviour of the individuals influenced the outcomes.

The data collected for answering this question was reported throughout this chapter as summarised behavioural data (per research objective and subsidiary question). The two observers that participated in the study produced a detailed report.
The report follows the flow of the execution process and reports the data in terms of the research questions that were answered during the three-day process. It begins with observation on the activities for Research Objective 1, followed by the activities for Research Objective 2 and Research Objective 3. In addition, a short conclusion is provided at the end of the report.

In **conclusion**, the observers stated the following[21]:

> *The observers qualify the outcome of the three-day session as being a true and valid representation of the collective view of all participants. The way in which the process was facilitated ensured open discussion on the topic and each participant was able to contribute to the shared working space. The researcher did not influence the methodological process used in this study. The moderator was an objective and neutral role-player who executed the required steps of the process without influencing content. The profiles of participants at this session represented both a Learning and Development and Business view. This inherently resulted in participants from a variety of different levels of work being present. The participants eloquently captured the value of the integrated participation at the end of the session. Both Learning and Development and Business representatives reflected on the three days and* ***stated that their personal learning was to listen to one another and to really hear what each other's needs were****. The opportunity for the levels of true dialogue and shared understanding that took place between the business and specialist functions in this process is highly valuable in the business context and should not be underestimated. The process may be complete, but this component of the study has initiated an exciting journey ahead for Absa with regards to eLearning.*

The process also affected the individuals participating in the focus groups. A questionnaire was sent out to obtain feedback.

[21] The original observation report as provided by the Observers is attached as **Appendix S**.

4.8.2. What effect did the process have on the individuals participating in the research inquiry?

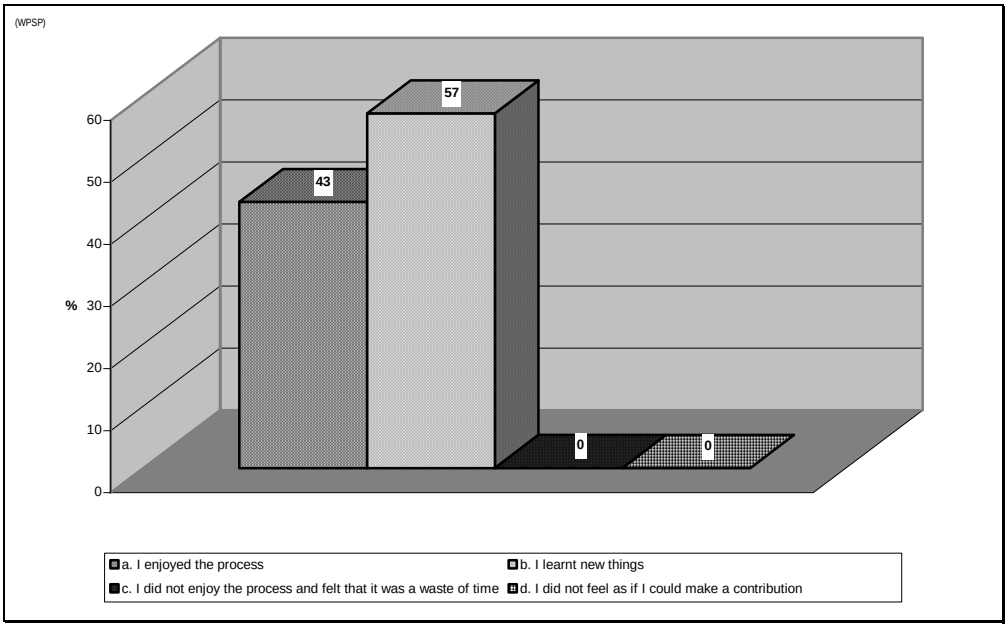
During the last verification session, the verifiers felt strongly that the effect of the process on the focus group participants should be determined. The questionnaire was aimed at obtaining feedback about the **Systems Thinking process** (Questions 1, 4, 5 and 7); the **logistical arrangements** (Questions 2, 8 and 10); the **objectives of the session** (Question 3); and the **learning** taking place (Questions 6, 9 and 11).

The questionnaires were sent out via email to all participants, including those who only participated in Day 1 of the process. **Ninety-five percent** of the participants responded. Subsequently, each question and the relevant results are discussed.

Question 1: How did you feel about the Systems Thinking process?

The objective of the question was to understand what the **effect of the Systems Thinking process** was on the focus group participant. The respondent was requested to select a response between enjoying the process, learning new things, feeling that the process was a waste of time or not being able to make a contribution. The data obtained from the answers to this question is presented in Figure 4.13.

Figure 4.13: Post focus group questionnaire: Results from Question 1

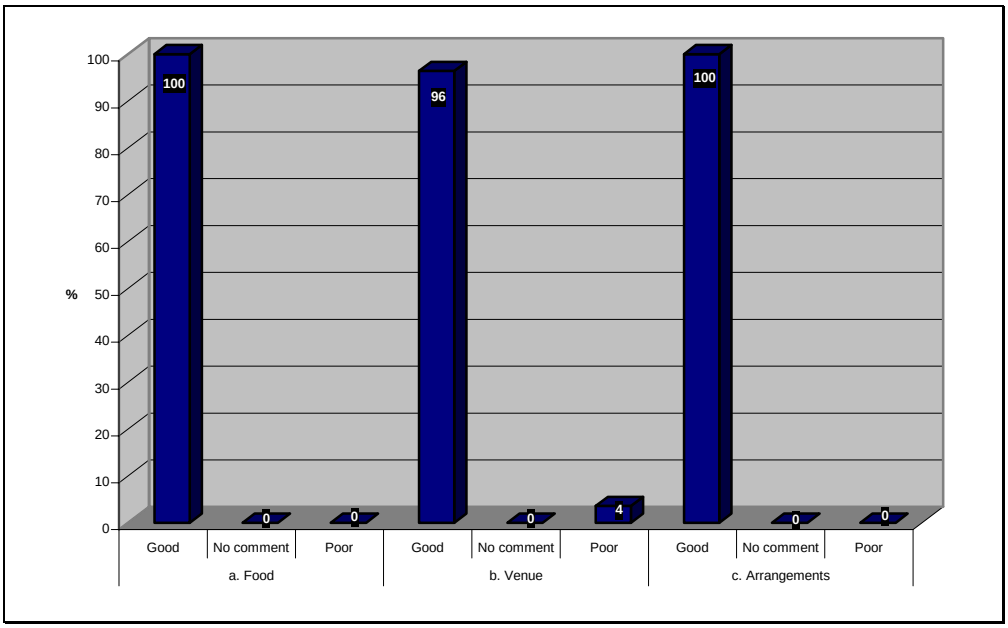


Forty three percent of the of the focus group participants reported that they **enjoyed the process** and 53% of the participants felt that they **learnt something new**. None of the participants felt that the process intimidated them, that it was a waste of time, or that they could not make a contribution.

Question 2: How did you feel about the logistical arrangements of the process?

Literature indicated that successful logistical arrangements contribute to the success of focus groups (Greenbaum, 1988; Krueger & Casey, 2000). This question was asked to obtain feedback from the focus group participants regarding the **food, venue and arrangements** during the sessions. The respondents were requested to indicate whether each of the elements was good, poor or no comment. The data obtained from the answers to this question is presented in Figure 4.14.

Figure 4.14: Post focus group questionnaire: Results from Question 2

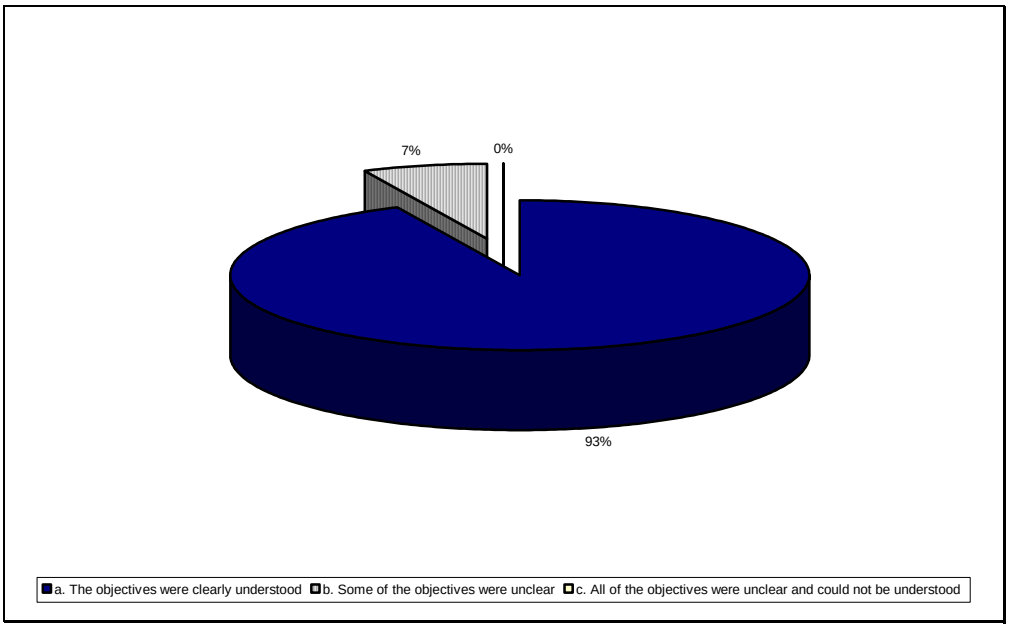


Ninety-nine percent of the participants felt that the **food, venue and arrangements** were good. One participant felt that the venue was not appropriate.

Question 3: Did you clearly understand the objectives of the Systems Thinking process?

This question was asked to determine if the participants **understood what they were requested to do** during the focus group sessions. The respondents were requested to indicate the degree to which the objectives were understood. The data obtained from the answers to this question is presented in Figure 4.15.

Figure 4.15: Post focus group questionnaire: Results from Question 3

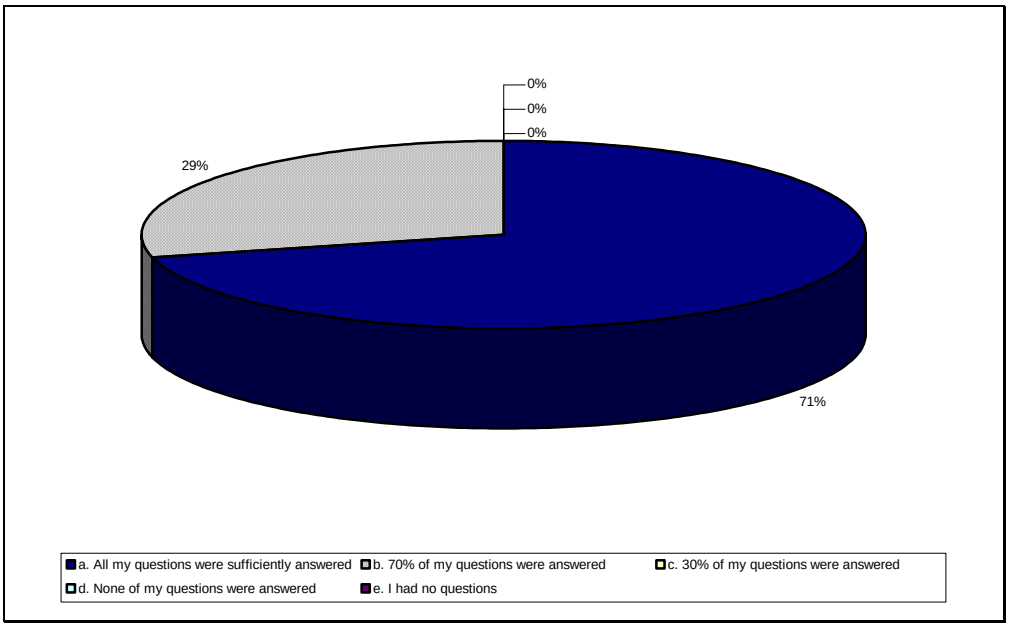


Ninety-three percent of the participants felt that the objectives were **clearly understood** and seven percent felt that some of the objectives were unclear. None of the participants reported that they could not understand any of the objectives.

Question 4: Were all your questions answered during the Systems Thinking process?

This question was asked to determine the extent to which the focus group participants felt that their **questions were answered**. The respondents had to select the degree to which their questions were answered. The available options ranged from having all questions answered to having no questions answered. An additional option was given for candidates who felt that they had no questions to ask. Thus it gives an indication to the clarity of the process applied. The data obtained from the answers to this question is presented in Figure 4.16.

Figure 4.16: Post focus group questionnaire: Results from Question 4

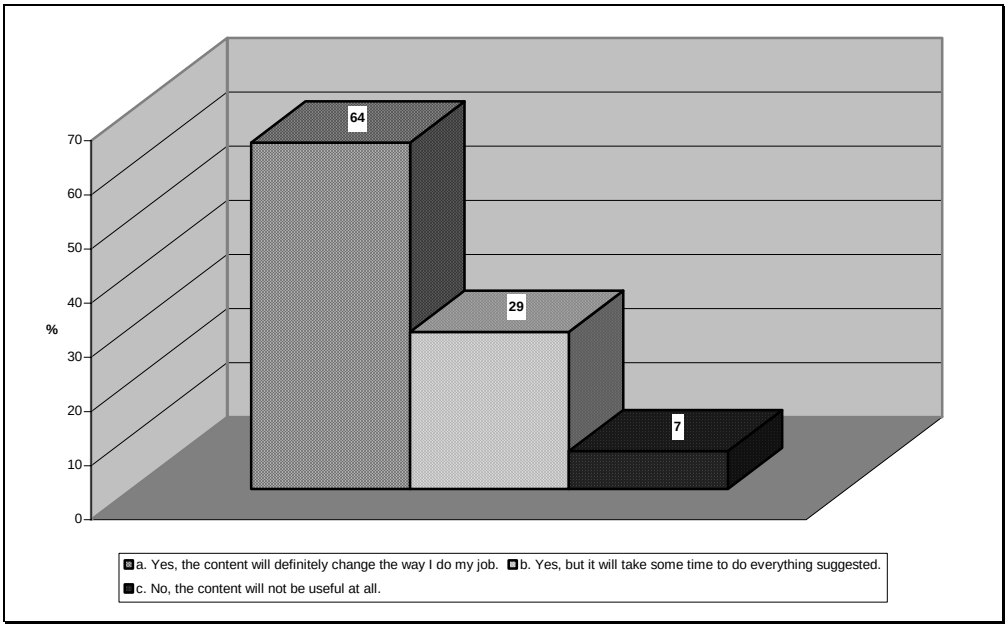


Seventy-one percent of the participants felt that their **questions were sufficiently answered**. Twenty-nine percent of the participants reported that **70% of their questions were answered**. None of the respondents selected options c, d or e.

Question 5: Will the results of the Systems Thinking process contribute to your working environment?

The objective of this question was to determine if the content of the process would have an **effect on how people work**. The selection range included immediate implementation, implementation over time or no implementation at all. The data obtained from the answers to this question is presented in Figure 4.17.

Figure 4.17: Post focus group questionnaire: Results from Question 5

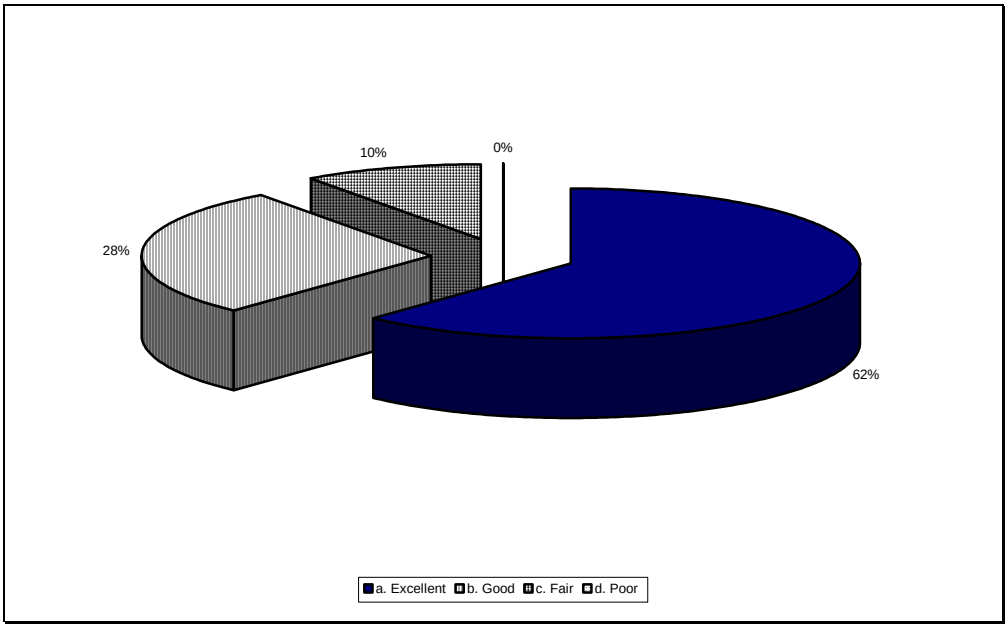


Sixty-four percent of the participants felt that the content of the workshop would **make a difference** to how they would do their work in future. Twenty-four percent felt that it would make a difference, but that it would take **time to become competent**. Only seven percent of the respondents felt that the process **could not add any value** to their work.

Question 6: Which one of the following terms describes your overall learning best?

Systems Thinking is proclaimed in literature as a process that also enables learning (Senge *et al.* 2001). This question was asked to determine the **quality of the learning** of the focus group participants. The selection options were excellent, good, fair or poor. The data obtained from the answers to this question is presented in Figure 4.18.

Figure 4.18: Post focus group questionnaire: Results from Question 6

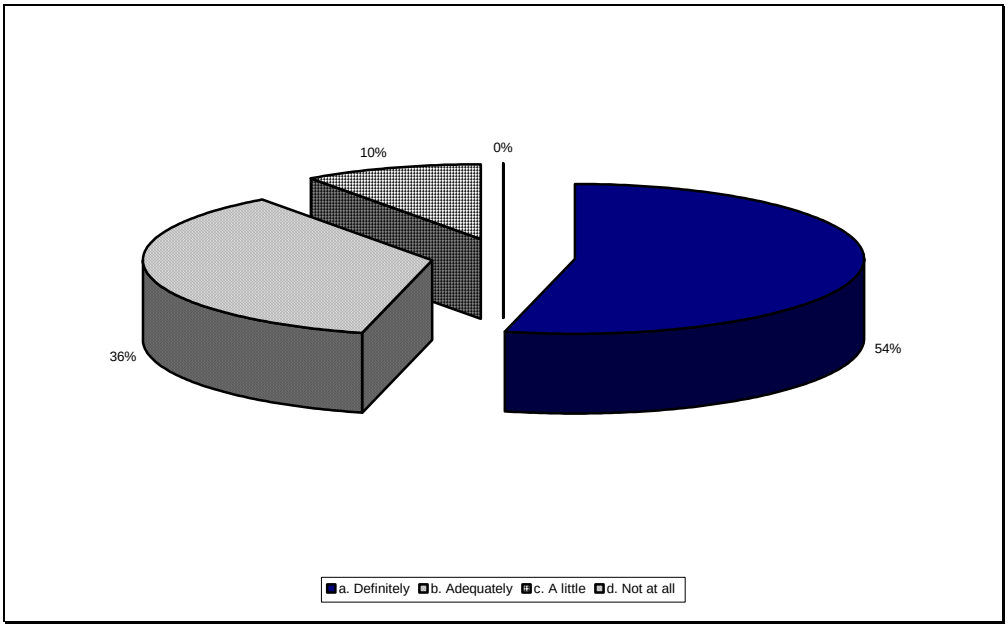


Sixty-two percent of the participants felt that the term 'excellent' described their overall learning best. Twenty-eight percent described their learning as good and ten percent described their learning as fair. None of the participants felt that their learning was poor.

Question 7: Did the Systems Thinking process meet your expectations?

This question was asked to determine the degree to which the process delivered an **expected outcome** as promised in the invitation letter. The respondents could select between definitely, adequately, a little or not at all. The data obtained from the answers to this question is presented in Figure 4.19.

Figure 4.19: Post focus group questionnaire: Results from Question 7

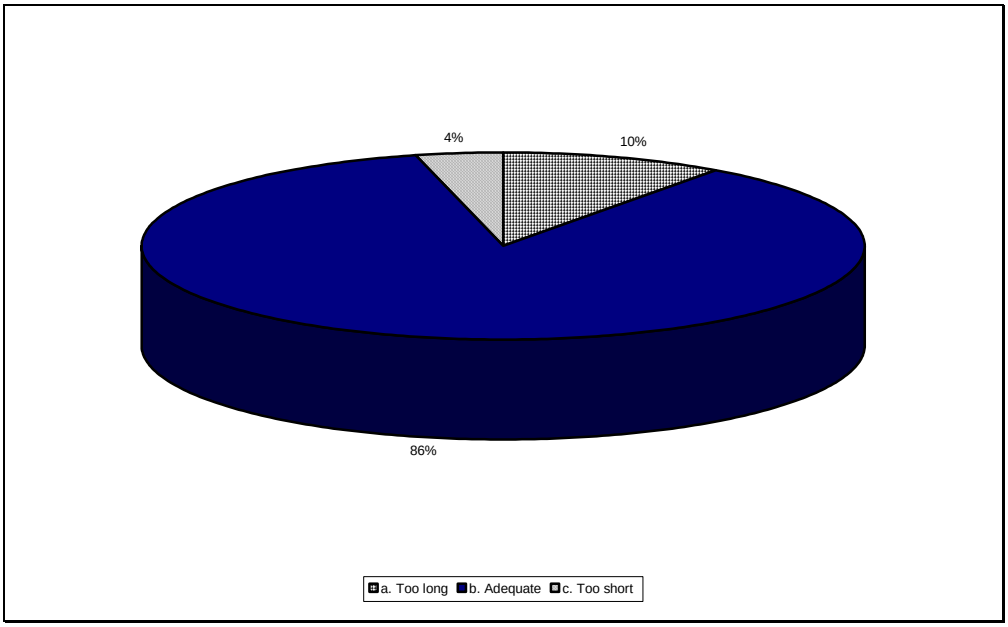


The workshop definitely met 54% of the **expectations** of the participants. Thirty six percent felt that their needs were **met adequately** while ten percent felt that their needs were met a little. None of the participants reported that their needs were not met at all.

Question 8: Three days of participating in a focus group was …

This question was asked to determine whether the **timing in the process** was correct. The respondents were asked if the time was too long, adequate or too short. The data obtained from the answers to this question is presented in Figure 4.20.

Figure 4.20: Post focus group questionnaire: Results from Question 8

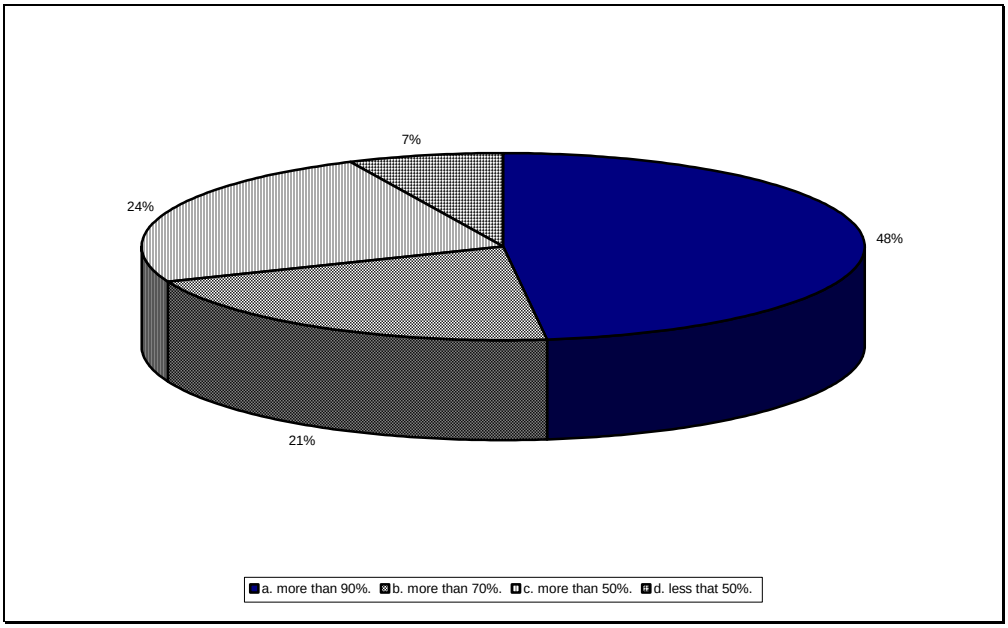


Eighty six percent of the focus group participants felt that the time spent to do the Systems Thinking process was adequate. Fourteen percent of the people were not satisfied with the time allocation – four percent felt it was too short and ten percent felt that it was too long.

Question 9: How much did you learn during the Systems Thinking process?

This question was asked to obtain the perception of the focus group participants with regards to their **own learning**. The respondents were requested to indicate the degree to which they had learnt during the process. The data obtained from the answers to this question is presented in Figure 4.21.

Figure 4.21: Post focus group questionnaire: Results from Question 9

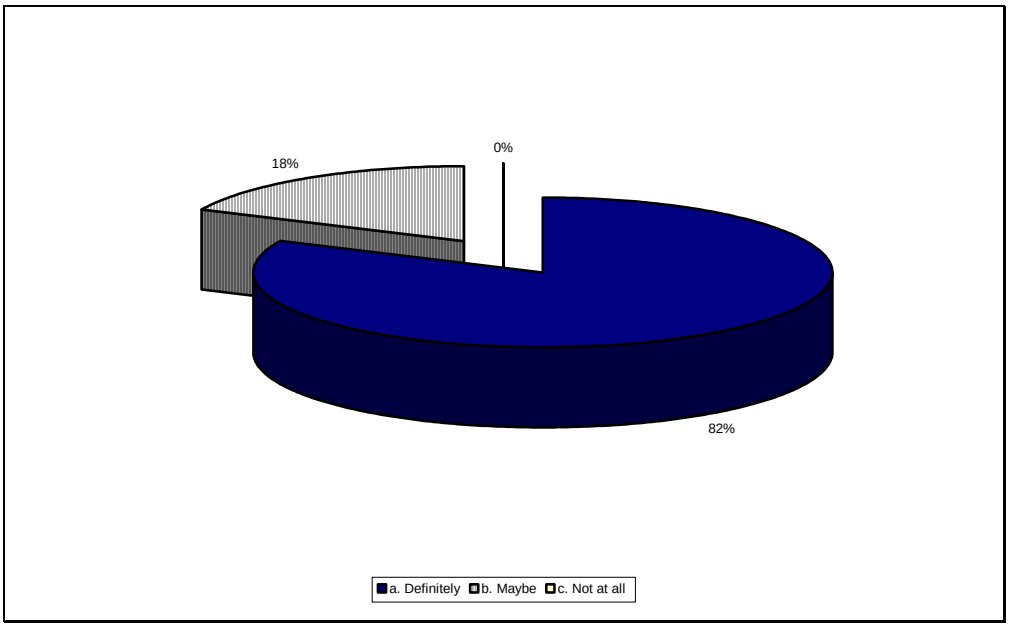


Forty-eight percent of the participants felt that they **learnt more than 90% during the Systems Thinking process**. Twenty-one percent felt that they had learnt more than 70%. Twenty-four percent felt that they had learnt more than 50% and seven percent felt that they had learnt less than 50%.

Question 10: Would you motivate your colleagues to participate in a similar session?

The objective of this question was to determine how **valuable the focus group participant felt that the process was**. The assumption was made that if the participant felt that it was valuable they would promote the process to a colleague. The respondents could select between definitely, maybe or not at all. The data obtained from the answers to this question is presented in Figure 4.22.

Figure 4.22: Post focus group questionnaire: Results from Question 10

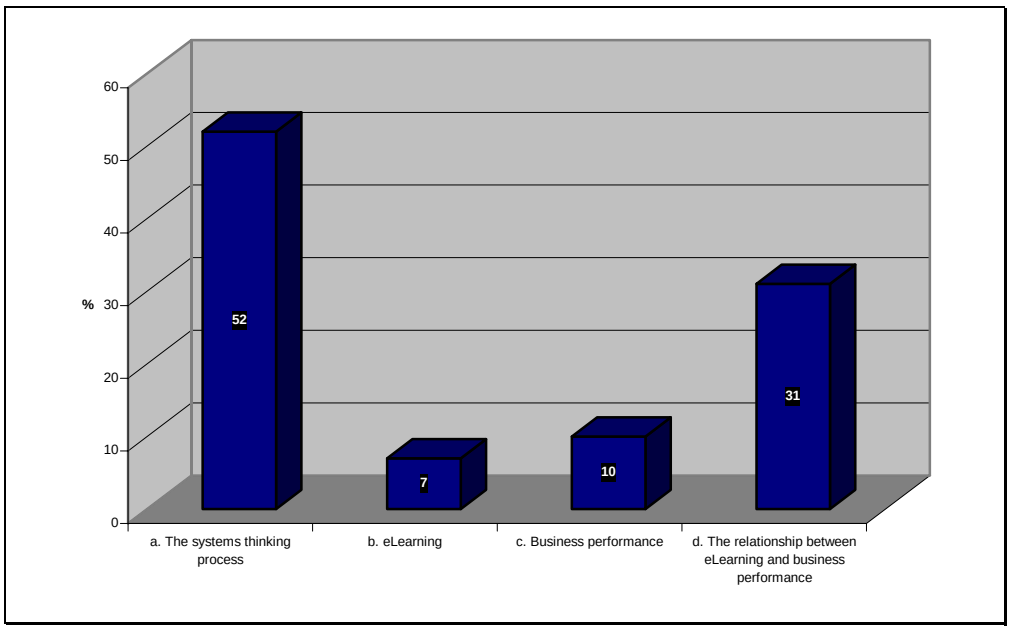


Eighty two percent of the participants reported that they would advise other people to **participate in a similar process**, while 18% said that they would 'maybe' do so. None of the participants felt that they would not promote it at all.

Question 11: Which of the following topics did you learn most about during the Systems Thinking process?

The objective of the question was to determine the **range of topics** that the respondents felt they had learnt about. The topics provided as options were the Systems Thinking process, eLearning, business performance or the relationship between eLearning and business performance. The data obtained from the answers to this question is presented in Figure 4.23.

Figure 4.23: Post focus group questionnaire: Results from Question 11



Fifty two percent of the participants felt that they learnt more about the **Systems Thinking process**. Seven percent felt that they had learnt more about **eLearning** while ten percent felt that they had learnt more about **business performance**. Thirty one percent of the participants felt that they had learnt more about **the relationship between eLearning and business performance**.

4.8.3. Summary of post focus group questionnaire responses

Feedback about the **Systems Thinking processes** indicated that the focus group participants enjoyed participating in the process, felt that they learnt something new and at least 70% of their questions were answered. The positive feeling about the process prevailed in the percentage of people indicating that their needs were met (90%) and that they would work with the process in future (88%).

Overall, the focus group participants felt the **logistical arrangements** in terms of food, venue, arrangements and the length of the session was sufficient. Further evidence for this was that 82% of the participants indicated that they would advise other people to participate in a similar process.

Most of the focus group participants indicated that the learning objectives were clear. Further to this, they found the process to be an excellent learning experience indicating that most of them learnt more than 70% during the process. The focus group participants indicated that the topic they learnt most about was Systems Thinking, followed by the relationship between eLearning and business performance.

General comments from the focus group participants included in the questionnaires are listed below.

- *The process was very insightful and a joy to be a part of. It would be great to be involved in a similar exercise in the future. I feel it would also contribute to the rest of the company if we can address more issues in this manner.*
- *No additional suggestions. However, I would like to comment on the method you utilised to reach the conclusion. It was great! There was no indication at the beginning that you can take a load of problems and then, in the end, end up with only one major concern. This is a wonderful method that you can apply in any other problem area of your life and I have already used it again.*

- I *would suggest that it would be better to book this session as a full three days because on the second day it was suggested that we might be finished by 13:00 and I think that a lot of the people there rushed to get finished and also squeezed in a meeting after 14:00 which might have an effect on the most important part of the sessions.*

In conclusion, the evidence indicated that the participants experienced the process as positive and that they enjoyed participating in the process. The participants further reported that they had learnt, albeit from different perspectives and different topics. The suggestions for improvement can be taken into account in future designs for similar focus group sessions.

4.9. Summary of case study evidence

In collecting evidence for the subsidiary questions of the research objectives, it was found that various **problems exist** with regards to eLearning, such as technology, communication, shared meaning, competence of learners, managers and instructional designers and links to business results. The focus groups linked the themes (grouping of problems) by determining the **relationship** between the relevant themes in that group. Each group identified **one driver problem**, for example: “Overall communication between stakeholders is insufficient”. Based on a verification process, an **integrated digraph** was designed that provided the basis for the second part of the research process.

In the second part of the process, a **system in focus** was designed, stating that: “a system in focus is a system that will entrench a shared mental model of eLearning and its contribution to enhance business performance”. In the next step, each of the focus groups identified two main **stakeholders** that had the most power over the system in focus. Examples of the stakeholders were middle management and Instructional Designers.

Measures of performance were designed for each of the stakeholders. Examples of the measures of performance were the “level of profitability through sales” and the “utilisation of the eLearning platform”. **Co-producers** were identified for each of the measures of performance. Examples of the co-

producers were the “number of training courses completed” and the “number of products sold”.

Having generated the MOPs and subsequent co-producers, the relationships between these variables were determined and **systems dynamic models** were designed. A **systemic story** was told for each of the systems models. The starting point of the story, representing the systemic model, defined the leverage point for each of the models.

Throughout the process, the **behaviour** of the individuals was **observed** and reported on as to how the behaviour influenced the outcome of the study. It was found overall that the behaviour of the focus group participants was conducive to the process. The focus group participants were also requested to share the effect of the process on them as individuals. The focus group participants felt positive about the process. They indicated that learning had taken place, that they were happy with the logistics and that some of them would re-apply the process.

Debriefing sessions were held at the end of each day with the moderator and the observers as to determine how the process could be improved. **Verifiers** were contracted to create an audit trial by checking the outputs produced by the focus group participants.

Finally, the outputs of the three focus groups were integrated utilising the outputs designed by the focus groups.

To conclude: the research findings were discussed in detail in this chapter. It was found that ‘**a shared mental model of expectations between participating stakeholders’** can be seen as a leverage point to improve business performance through eLearning.

Chapter 5: Reflection

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5.1. Introduction

This study focused on the following research question:

What is the leverage point that will improve business performance through eLearning?

In order to find an answer to this question, several subsidiary questions were asked. The subsidiary questions were designed through utilising the Systemic Thinking tools and processes. These questions were answered individually in Chapter 4. Collectively, the answers of the subsidiary questions contributed to answering the main research question.

The next section provides an overview of the study from conceptualisation to the end results.

5.2. Summary of the study

In **Chapter 1**, the practical context of the study is painted. Absa is a **financial institution** tasked with providing banking and financial services to the South African population. Absa, as a business, faces various challenges that include rapid technological change, changing customer needs and an increase in customer sophistication, and a need for creation of shareholder value. Absa reacts both strategically and tactically to these challenges.

The building of competencies is both a strategic and tactical requirement (Becker, Huselid & Ulrich, 2001; Gates, 1999). eLearning solutions provide a mechanism to sustain the rapid competency development, necessary for the 'now' (tactical) and the 'future' (strategic).

The Absa Learning and Development Department focuses on delivering the required learning solutions to Business Units within the Absa environment. One of the **delivery mechanisms** implemented by them is **eLearning**. This Department is, however, constantly faced with feedback from the Business Units that their needs are not met. They are also questioned as to what value an eLearning solution has.

The question being asked by Business[1] is: "**How does eLearning improve business performance?"**

A number of studies indicate that **eLearning** is implemented to **improve business performance** (Pope, 2001; McGuire & Goldwasser, 2001; Arnold 2001; Sanders, 2001). However, these studies also indicate there are **various expensive lessons to be learnt**. These lessons span over various disciplines, for example:

- bad design of content.
- lack of skills of the target population.
- lack of technology availability and stability.
- **no clear line of sight between learning results and business results** (Pope, 2001; McGuire & Goldwasser, 2001; Arnold, 2001; Sanders, 2001).

From a Business point of view, the inability to interpret learning results, in relation to company performance, is problematic.

[1] In this study the word **'Business'** refers to the eChannels: Contact Centre Division. It implies that the following stakeholders are part of the grouping – operational management responsible for business results, team leaders, and the employees (also referred to as learners). A detailed description of this sample is available in Chapter 3.

Systems Thinking was introduced to this study to provide an **alternative perspective** for understanding and learning about the underlying structures of the problem, rather than addressing the effects of the problem. The methodology ultimately leads to the identification of a leverage point. The **leverage point** allows the Business and the Learning and Development Department to focus their efforts in **creating a clear line of sight between the content of the eLearning intervention and how it will enable the improvement of business performance** (Becker *et al.* 2001).

In **Chapter 2** the rapidly changing world of work, business performance, eLearning and eLearning in the context of business performance, were debated. In today's new economy, corporations are **increasingly facing new challenges**, such as integration and globalisation, with increased competition, maturing markets and growth in the services sector. The challenges also include rapid growth of information and communication technologies, and the **innovative capability of people** to cope with change. (Gates, 1999; Handy, 2001; Porter, 2001; Thinq, n.d.; Ward & Griffiths, 1996; Weill & Broadbent, 1998).

In addition, corporations are driven by a need to **show short term results**, no matter what circumstances exist (Thinq, n.d.; Weill & Broadbent, 1998).

Business performance is about setting a company's strategic goals and then tracking the progress towards meeting the goals (Becker *et al.* 2001; Porter, 2001; Whitting, 2004). In Absa, the Balanced Scorecard, based on the model of Kaplan and Norton (1996), is utilised to define strategic goals and measure business performance from four perspectives:

1. Financial;
2. Customer;
3. Internal Business Processes; and
4. Learning and Growth.

This view, regarding the measurement of business performance, creates the context within which eLearning must articulate its contribution. eLearning has the potential to **contribute to meeting the requirements** of a rapidly changing world of work. Although not seen as a sole solution, the specific

benefits of eLearning could allow an organisation to learn at the same speed that the organisation is changing at.

Rosenberg (2001:28) **refers to eLearning** as "… the use of Internet technologies to deliver a broad array of solutions to enhance knowledge and performance." Thus, **conceptually**, eLearning as a solution is promising impressive opportunities for people and companies. However, there are **several challenges** that must be faced in order to realise the potential.

The **articulation of the value of eLearning** can potentially be done through the benefits of eLearning. The three areas of categorisation of eLearning benefits are the:

1. cost saving factors: revenue impact, cost optimisation and company infrastructure.
2. performance improvement factors: retention and transfer of learning.
3. competitive position factors: change, empowerment and diversity. (The Corporate Leadership Council, 2001a).

However, the **stakeholders** still have their **own interpretation** of the measures and there is not always alignment of the interpretations between the participating role-players. In order to understand the **actual value of eLearning** to its stakeholders – Business, learners and customers – we need to understand **how to capture** the value. According to Islam (2004), the **way we think about learning measurement** should changed. Islam (2004) states that **critical business requirements, the voice of the customer and the voice of business, should be taken into account when measuring the value of learning programs**.

Various benefits and challenges regarding eLearning are listed in the literature. However, in practice the current view of measurement, where **non-financial measurements are not commonly acknowledged**, eLearning is regularly put under pressure to prove a 'Return on Investment' (Corporate Leadership Council, 2001a). According to Barron (2002), the key driver of the eLearning investment previously seemed to be **cost savings**. However, many companies seem to have realised that long term benefits such as **increased productivity, improved employee retention or a more agile**

and competitive organisation, are more important. Carter (2002) and Cisco (2002b) also state that the driver for eLearning programs are becoming more aligned with organisational goals and customer needs, rather than cost savings. **However, a language for expressing these non-financial values has not been created.**

Berk (2004) also reports a move in the learning industry towards **reasonable quantitative and qualitative measures** as opposed to highly statistical measures. Given the time, money and effort it takes to design and implement precise measures, it seems as **if executives prefer less accurate but timeous measures to make decisions**.

Various debates exist around business performance, how it articulates value and how eLearning potentially could deliver on this expected value. However, **there still seems to be an undefined gap that accurately articulates and directs the value creation of eLearning in business performance** (Barron, 2002; Berk, 2004; Hall & LeCavalier, 2000; Hartley, 2004; Sribar & Van Decker, 2003)**.**

Systems Thinking allowed the researcher and participants access to individual and collective behaviour, **embedded in a natural world** in which they live and interact – and therefore in the context where the measurement will be implemented (Senge *et al.* 1994). Systems Thinking promotes specific tools and activities that **influenced the design of the research objectives** and subsidiary questions.

This research study therefore focused on the …

Identification of a leverage point to improve business performance through eLearning.

The **research objectives** for this study were to:

- identify the **driver problem** that prevents eLearning from improving business performance.
- design the **systems dynamic model** that represents the driver problem.
- identify the **leverage point** within the systems dynamic model.
- reflect on the **effect** that the **behaviour**, of the individuals participating in the research process, has on the research inquiry.

In **Chapter 3** the research methodology was outlined. The **practical problem** that this study addressed was the misalignment between the views of Business and the Learning and Development Department regarding the value that eLearning adds to business performance. The **core problem of the study** was to determine how eLearning can contribute to the improvement of business performance.

This study aimed at uncovering a deeper complexity by focusing on the structure beneath the 'water line'. Due to the "complexity of the problem" (Saunders *et al.* 2000:86), and the "necessity to discover the details of a situation to understand reality or a reality that is working behind these details" (Remenyi *et al.* 1998:35), the study can be categorised as predominantly a **phenomenological** approach.

The different **ontological properties** of this study included seeing the world and humans as living organisms, part of a systemic whole (Wheatley, 2001). Within the systemic whole, people are social actors that respond humanly to different situations. The systemic whole consists of multiple realities and versions of the truth (Wheatley, 2001).

From an **epistemological** view, the knowledge sources representing **legitimate knowledge** were considered. The knowledge sources included:

- talking interactively with people in groups, asking them about their views, assumptions and beliefs around a phenomenon.
- observing individuals in group interaction.
- participating in a recurring process of data generation and analysis to gain access to the deeper structure of the phenomenon, and to

understand how the events and trends above the water line are influenced by the assumptions and beliefs of people below the water line.

Both an **inductive** and **abductive approach** were used in this study (Mason, 2002, 180). During the first stages of this study, an **exploratory research strategy** was followed to create a deeper understanding of the phenomena at play within the systemic whole of the research project. The overall research strategy was a **qualitative case study**. The **time horizon** of this study was limited to a specific period of time. It represented a snapshot, or cross-sectional view of the systemic reality. The focus group participants were involved in the study during the period June – July 2003. Interviews, focus groups, observation and surveys were used as **data collection methods**. The ethical considerations were taken into account for each of the data collection methods during the design and implementation of the data collection instruments.

The **inquiry process** was implemented in **three** phases:

- **Phase 1:** Preparation for focus groups;
- **Phase 2:** Execution: Focus groups data collection, analysis, verification and observation; and
- **Phase 3:** Closure of the process.

In **Chapter 4** the results of the systemic inquiry process, designed for this study, were presented. A **second level of analysis** included throughout, noted the similarities and differences between the outputs produced by the focus groups. The final picture integrated the outputs produced by the focus groups into one system dynamic model with an emerging story. Specific results were produced for each research objective[2].

Research Objective 1: To identify the driver problem that prevents eLearning from improving business performance

[2] Colour coding is used in the report to cluster the relevant research objectives. This colour coding has been used throughout the report.

In Focus group 1, the driver problem was identified as Theme 8: "**Overall communication between stakeholders is insufficient**". In Focus group 2 the driver problem was identified as Theme 2: "**We have not marketed/ communicated the value of eLearning**". In Focus group 3, the driver problem was identified as Theme 3: "**The concept of eLearning being just another way of learning is not understood – mind-shift**". In Focus group 4, the driver problem was identified as Theme 2: "**What's in it for me? – all stakeholders**."

Focus groups 1 and 2 **both touched on communication**, with the first being more generic and the second focusing on the specific topic of the value of eLearning. Focus group 3 looked at the **eLearning mental model**, while Focus group 4 brought the individuals' need to **understand the value of eLearning** to the fore.

An integrated digraph was designed by the researcher using the input from the verifiers, the observers and the moderator. Based on the relationships defined in the integrated digraph, the **driver problem** was identified as:

Theme 1: There is no shared meaning regarding eLearning: implementation, business value, and terminology.

This driver problem was used as the basis from which to work, in order to define the system in focus and, in the end, to design the systems dynamic model for the study.

Research Objective 2: To design the systems dynamic model that represents the driver problem

A system in focus (SIF) was designed by the four groups, based on the integrated digraph. The SIF was stated as:

A system in focus is a system that will **entrench** a shared mental model of eLearning and its **contribution** to **enhance** business performance.

At this stage, the number of focus group participants was reduced to 21, and only three focus groups were formed. Based on the SIF, each of the three focus groups defined their stakeholders in terms of power and influence. The two stakeholders identified by **Focus group 1** were:

- Business – eChannels Head; and
- eLearning Sponsor – Head of People Management.

Focus group 2 went through two cycles of stakeholder identification. They went back to the identification of the stakeholders and subsequently identified the following two stakeholders:

- People Management (Learning and Development Consultants and People Management Account Executives); and
- Strategic Business Unit or Group Specialist Function management.

The two stakeholders identified by **focus group 3** were:

- Middle management; and
- Instructional Designers.

In the next task set to them, the focus groups identified two 'Measures of Performance' (MOP) per stakeholder grouping and the relevant co-producers for each of the two MOPs.

Focus group 1

The co-producers for **MOP 1**: Level of profitability through sales and services touched on topics such as training, recruitment, resourcing, motivation and productivity. The co-producers for **MOP 2**: eLearning Sponsor – successful completion of eLearning courses (level of participation) included topics on resourcing, competence, course content, technology infrastructure, significance of eLearning and business requests for eLearning.

Focus group 2

The co-producers for **MOP 1**: Level of utilisation of the eLearning platform was formulated around topics on learner interest and awareness, eLearning education, support content relevance and access to eLearning. The co-producers for **MOP 2**: Level of productivity included topics on participation,

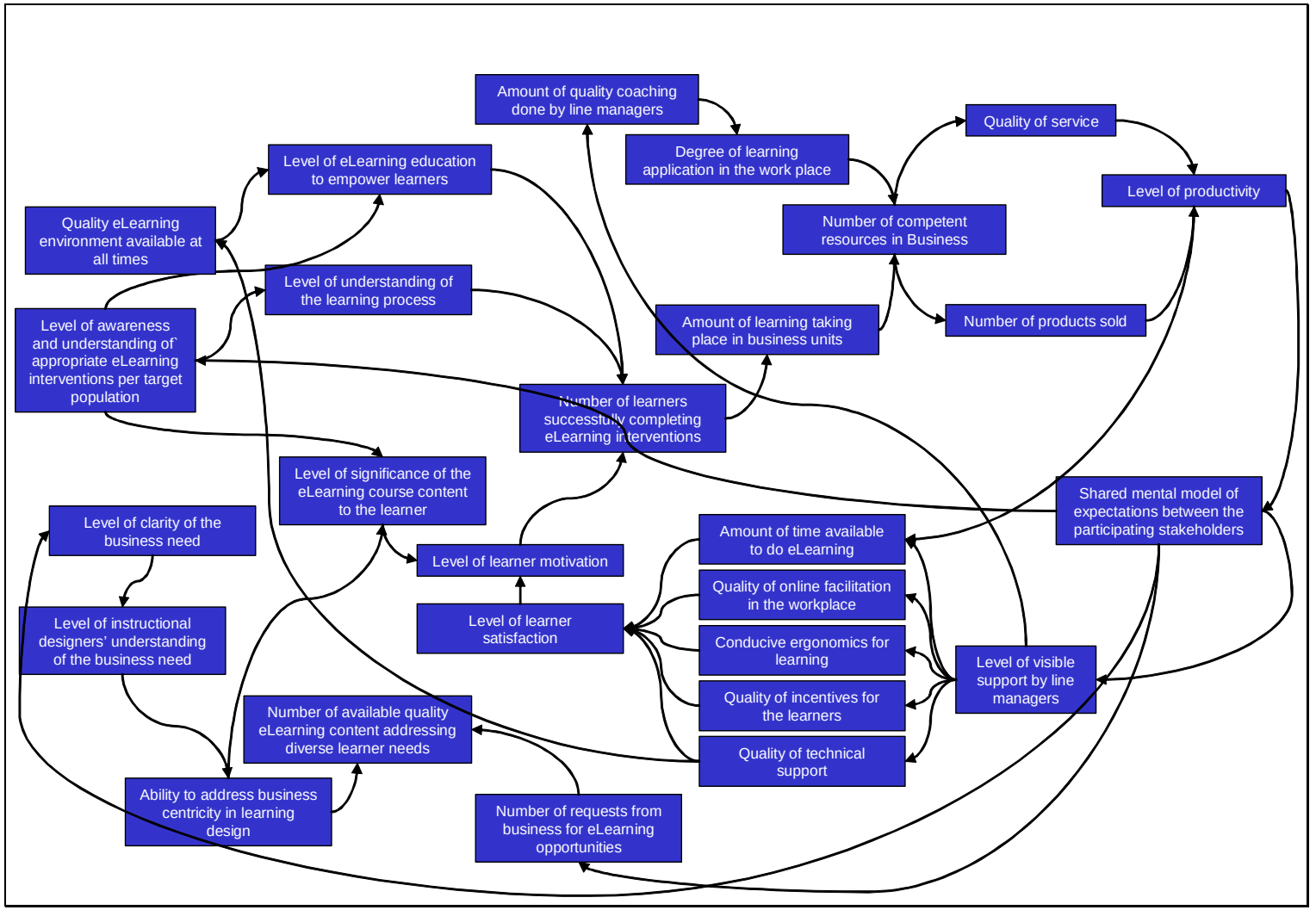
learning, ergonomics, training time, flexible delivery, availability of the eLearning platform and competence.

Focus group 3

The co-producers for **MOP 1**: Level of achievement of business performance touched on topics regarding competence, commitment, motivation support and the application of learning in the work environment. The co-producers for **MOP 2**: Level of learner satisfaction achieved included topics on facilitation, motivation, competence, learning content, significance of eLearning, technology infrastructure and support.

Three systems dynamic models were designed by the focus group participant. From these models the researcher designed an integrated systems dynamic model that represents the total system designed by the three focus groups. The integrated systems dynamic model is represented in Figure 5.1.

Figure 5.1: Integrated Systems Dynamic Model



Note: An enlarged copy of the integrated systems diagram can be obtained in Chapter 4, Figure 4.13.

The integrated model represents the following story:

The starting point: A shared mental model	
The starting point of the story is a **shared mental model** of expectations between the participating stakeholders (Business and Learning and Development) regarding the contribution of eLearning to business performance. The shared mental model influences four elements on the systems dynamic model: 1. Level of **visible support** of the line managers; 2. Level of **clarity of business needs** to all relevant stakeholders; 3. **Number of requests** from business for eLearning opportunities; and 4. Level of **awareness and understanding** of appropriate eLearning interventions per target population.	
The level of support from line managers	
The **level of support from the line managers** becomes visible through elements such as the quality of incentives available for the learners; provision of time to do eLearning during work hours; quality of online facilitation in the workplace; conducive ergonomics for learning; provision of quality technical support; and provision of quality coaching by line managers. The combination of the six factors above leads to an increased level of **learner satisfaction**. If the learners feel good about their achievements and the recognition thereof, this will **increase their motivation** to participate in eLearning courses.	
Quality of the technical support	
The increased quality of **technical support** leads to the availability of twenty-four hours a day, seven days a week quality eLearning environment. Having such a stable, accessible environment could allow an **increased** number of learners in Absa **access** to learning through the provided eLearning courses. An increased level of **clarity** of the **business needs** will increase the level of understanding (or shared meaning) that the instructional designers have of the topic at hand.	The increased understanding will, in turn, increase the ability of the instructional designers to address **business centricity** in their designs. This element, together with the increased number of requests from business for eLearning opportunities will lead to richness in the availability of flexible quality eLearning content addressing diverse learner needs. The availability of quality eLearning opportunities will increase the potential number of learners completing eLearning interventions.

The level of awareness and understanding	
The increased level of **awareness and understanding** about eLearning interventions available for specific target populations as well as the business centricity of the learning design will increase the level of significance of the eLearning course content to the learner. An **increased level of significance** will increase the **internal motivation** of the learner, which will, in turn, enable the **successful participation** of learners in eLearning interventions.	The increased level of awareness and understanding will further lead to an increased level in eLearning education empowering the learner, as well as ensuring an enhanced understanding of the learning process. These two elements may both lead to an increase in the number of learners successfully completing eLearning interventions.
The effect on business productivity	
The **completion of eLearning courses** increases the amount of learning taking place in the Business Unit. The learning, together with the quality coaching by the line managers [Business], increases the degree of learning application in the workplace and thus increases the number of competent resources in line. The more competent resources will provide improved quality of services and sell more products. The successful conclusion of these transactions will lead to an increased	level of productivity – improving the bottom line [business results]. With more money available, Business can increase the quality of incentives for the learners. The **story closes with the start in mind**. Every time the systemic route is completed, the shared mental model of eLearning contributing to business performance is enriched and confirmed, leading to positive reinforcement of the phenomenon.

Research Objective 3: To identify the leverage points within the systems dynamic model

Focus group 1: The starting point of the story is a shared mental model for eLearning.

Focus group 2: The starting point of the story is the awareness and education that will create a shared mental model regarding eLearning.

Focus group 3: The starting point of the story is an alignment between the stakeholders and shared meaning regarding eLearning.

The three leverage points that were identified are similar in that they address how people think about eLearning. The recurring message is about **common understanding between stakeholders**. This implies that both **Business** and the **Learning and Development Department** must have the same departing point for eLearning. There must therefore be viable conversations that establish exactly which results obtained, will create the clear line of sight, between the learning intervention and the improvement in business performance.

Based on the integrated systems dynamic model, the starting point of the story is a **shared mental model** of expectations between the participating stakeholders (Business and Learning and Development) regarding the contribution of eLearning to business performance. This leverage point identified from the systems dynamic model is:

A shared mental model of expectations between the participating stakeholders

In this study the shared mental model is about how eLearning can improve business performance. The stakeholders represented in this study are:

- Business: Operational management and employees; and
- Learning and Development: Operational management and Instructional Designers[3].

[3] A detailed breakdown of the sample participating in the study is available in Chapter 3.

Thus, the leverage point for improving business performance through eLearning is a **shared mental model of expectations between the participating stakeholders** with regards to how the eLearning solution will contribute to business results. **In addition the systems dynamic model also highlights the requirements that are necessary from a Business point of view to capitalize on the eLearning intervention**. Examples of these requirements are 1) Support from operational management and 2) a stable technology infrastructure.

Observers collected data regarding Research Objective 4 throughout the execution of the study.

Research Objective 4: To reflect on the effect that the behaviour, of the individuals participating in the research process, has on the research inquiry

The behaviour of the individuals was reported throughout each of the research objectives. The behaviour of the focus group participants was summarised by the observers as follows.

Summary as provided by observers

The observers qualify the outcome of the three-day session as being a true and valid representation of the collective view of all participants. The methodology that was applied ensured open discussion on the topic and each participant was able to contribute to the shared working space. The researcher did not influence the methodological process used during the focus groups. The moderator was an objective and neutral role-player, who executed the required steps of the selected methodology without influencing content. The profiles of participants at this session represented both a Learning and Development and a Business view. This inherently resulted in participants from a variety of different levels of work being represented. The participants eloquently captured the value of the integrated participation at the end of the session.

Summary as provided by observers, continued

Both Learning and Development and Business representatives reflected on the three days and ***stated that their personal learning was to listen to one another and to really hear what each other's needs were.*** *The opportunity for the levels of true dialogue and shared understanding that took place between Business and Specialist Functions in this process is highly valuable in the business context and should not be underestimated. The process may be complete, but this component of the study has initiated an exciting journey ahead for Absa with regards to eLearning.*

The effect of the research process on the individuals was also accounted for due to a request from the verifiers. A questionnaire was designed and implemented aiming at obtaining feedback about the **Systems Thinking process**, the **logistical arrangements,** the **objectives of the session** and the **learning** that took place. Overall, the feedback was positive. Learners felt that they learnt something new, and that their questions were answered and that the **logistical arrangements** in terms of food, venue, arrangements and the length of the session were sufficient. The tasks set to the groups were clear and the topic they learnt most about was Systems Thinking, followed by the relationship between eLearning and business performance.

In the process of design and execution of the study, various lessons were learnt. These lessons are reflected as methodological, substantive and scientific reflections.

5.3. Methodological reflection

The methodological reflection focuses on the extent to which the research approach influenced the eventual results.

An attempt was made to ensure the **purity of the results** of the study through the actions listed below.

- The researcher deferred bias by letting a focus group do the data collection and analysis. Furthermore, a moderator guide was designed and developed to guide the data collection and analysis

workshops. This ensured objectivity in the implementation of the research process.

- The outcomes of the Systems Thinking Focus groups were triangulated with external expert reviews and observations of how the behaviour of the participants in the focus group influenced the results.
- Multiple data collection methods were used to ensure reliability. The methods included interviews, focus groups, observers and a survey. The validity of the study was ensured by using a real-life example.
- The results were verified by comparing them to the literature through examining the recurring messages and pointing out the differences therein.

The following **positive aspects** were identified regarding the research methodology:

- The Systemic Thinking methodology ensured a recurring analysis of data-mining from what 'is' to what 'ought to be'. The first round of analysis explored the problem deeper in terms of 'what is'. The second round of analysis unearthed a solution with a different focus, defining 'what ought to be'.
- The process proved to have a built-in rigour, as Focus group 2 had to re-identify their stakeholders. When defining the co-producers for the measures of performance, the group realised that the measures of performance would not deliver or directly influence the defined system in focus. The group therefore had to rethink the stakeholders that they had defined.
- The three focus groups were used to design the answer. Although the three groups worked independently and worded their starting point of the stories, as well as the actual stories, differently, the recurring message pointed to the same starting point – the creation of a common understanding of expectations between the stakeholders participating in the eLearning intervention. The stakeholders being the learners, the Learning and Development Department and the Business Owner of the learning intervention.
- The three focus groups were all exposed to exactly the same moderator and inquiry process at the same time. The focus groups therefore all had the same advantages, support and **difficulties**.

- The concern to generalise the results of the study was **low** as there was an understanding that the context within which the research was conducted greatly influences the outcome of the research results. The research study was therefore contextualised clearly as relative to culture, organisation and people. Certain sections of the study can however be transferred to practice, for example, the change in attitude towards measurement and the application of the research design as a problem-solving methodology for complex value-add projects.
- Verifiers checked the answers produced and commented on the answers. These comments of the verifiers were reflected and incorporated in the results of the study. The verifiers also advised the researcher to allow the focus group participants to reflect on the process that they were exposed to.
- At the end of the implementation process, the focus group participants were allowed to reflect on the effect that the inquiry process had on them. This allowed the researcher to gain a deeper insight about how people feel when exposed to a Systems Thinking process. It also allowed the researcher to have a picture of how the Learning and Development Department and Business can work together to potentially design and agree on the outcomes of an eLearning program. The reflection also provided feedback on whether the inquiry process that the focus group participants were exposed to had any effect in solving the original problem, i.e. eLearning contributing to business performance.
- The success of the reflection process of the focus group participants also points to the strength of the design of the study in using verifiers to comment objectively, out of context, on the content produced by the focus group participants.
- The total implemented process was continuously tracked by observers in terms of the group, moderator and researcher behaviour. The observers ensured that both the moderator and the researcher kept to the contracted rules of objectivity. This was important in the light of the research being carried out as a qualitative study and that the focus group participants were known to the researcher, the researcher could easily have influenced or dominated the focus groups to produce answers based on the view of the researcher. Due to the positional

power of the moderator as leader of the group, she could also have subjectively influenced the outcome of the study.

- This study was part of a real-life-eLearning problem in an ecologically sound environment. This contributed to the value of the research for the company, as well as to the intellectual puzzle as to **how eLearning can enhance business performance**.

The following l**imitations of the research methodology** should be considered:

- In the process of executing an objective research process, the researcher had no control over the selection of the colleagues of the focus group participants or of the quality of the interviews that were conducted with them.
- Due to the fact that the researcher did not want to influence the outcome of the study, some of the arguments that were documented by the focus group participants did not reflect the actual conversations that took place. In some cases, where English was the second or third language, the participants also seemed to have a problem in articulating the actual meaning of what they were trying to say.
- An organisational problem that inhibited the study was the amount of time that the focus group participants had available to participate in the study. This implied that the focus group sessions had to be implemented in the shortest time possible. The study also had to be completed during working hours, so the focus group participants had to make and extra effort to attend the sessions in their already-busy schedules. Some of the participants were tired and this might have inhibited the quality of the content captured.
- The limited involvement of Executive Management was also seen as a constraint. Executive Management was only involved in the verification sessions. This limited the influence that they could have on the outcome of the focus groups. It also limited the interaction in terms of having Executive Management voicing their opinions to their subordinates regarding their expectations from eLearning. However, the presence of Executive Management during the focus group sessions, might have limited the openness and honesty with which the focus groups participants contributed to the content.

- The verifiers were concerned about changing the context within which the Systems Thinking diagrams were designed, as they felt that they might change the content of the diagrams, without understanding why the focus group participants designed the diagram as such in the first place. This feeling tended to constrain the verifiers within themselves to alter results. They therefore contained their changes to comments on how they felt a diagram or relations could have been made differently. The verifiers therefore, were faced with an interesting paradox: while they were requested to objectively study the results; they were concerned that their objectivity did not take the context of the study into account.

Form the researcher point of view the execution of the research methodology was both empowering and disempowering to me at the same time. While I understood that I designed the methodology as objectively as possible on purpose, I, at many times during the process, felt frustrated that I could not dive in and help the focus group participants to solve the issues that they were grappling with. This created the realisation within me that I cannot save or help Business, or the Learning and Development role-players. They had to grapple with the problems and challenges themselves in order to come to 'their own common understanding' and not my potentially-theoretical view of what should be done. In the end, it was astounding to see how the different focus group participants came to the conclusion that if they wanted eLearning to make any difference in their business environment, they would have to work with each other and not against each other.

I was also impressed by the level of commitment and effort that the focus group participants displayed to the study, taking into account their already-busy schedules. This commitment indicated to me that there is a real need to discuss the value of eLearning between all stakeholders as well as the impact that the behaviour of the different stakeholders has on each other. It also indicated to me that the stakeholders tried to reach out to each other to come to a common understanding.

I was further intrigued to see how the whole inquiry came together and how the **participants collectively interacted** and extended themselves in

collaboration, negotiation, explanation and support, in order to create a commonly agreed outcome.

The methodology provided specific results that were compared to the results of the literature review.

5.4. Substantive reflection

The substantive reflection focuses on comparing the results found in this particular research to other research on the same topic.

Literature on eLearning indicates both successes and failures. Benefits reported by students and supervisors include using skills learnt on the job – including writing, computer skills, better communication and management skills, convenience and consistency of training. **Failures** of eLearning include the lack of completion of some of the participants. Students cite **busy schedules** and **lack of time** and computer-related problems as reasons for not being able to complete the courses (United States Department of Agriculture, 2002). Research conducted by the Corporate Leadership Council (2001a) found that **accessibility, browser technology and download** time are also **limitations** of eLearning. Absa faces **similar problems** to other organisations in the new economy, for example, increased competition due to diversification of markets, rapid growth of information and technology. In the South African context the development of skills in order to keep up to the ever growing demand for skilled resources is specifically important.

The literature provides an abundance of examples regarding **challenges with aligning learning outcomes to business performance** (Corporate Leadership Council, 2001a; Forman, 1994; Swanson, 2001a). The problems with improving business performance through eLearning listed in the focus groups of this research were **motivation**, **lack of management** support, **access** to technology, lack of time to work on eLearning computers and the lack of establishing the desired **business results upfront**. The problems experienced in the Absa system are **also experienced elsewhere** in the world, albeit in theory or practice. One challenge that is very specific to South Africa and Absa, is the lack of ubiquitous access to computers and the availability of bandwidth.

One of the driver problems listed in the literature transpires as the lack of alignment of Executive Management with eLearning implementations. However, in this study, the alignment of the total picture was identified as a systemic problem. The major stakeholders identified in the literature were **executive management, learning designers and the technology** partners. In this study, the stakeholders were positioned **one level down** from Executive Management onto the actual business owners of the learning content. The **learners** were also identified as stakeholders as they had a major influence on the outcome (or success) of the eLearning intervention.

An explanation for the identification of different stakeholders might be that Absa has already implemented eLearning and wants to take it to a different level of contribution to business performance. The literature advising the alignment of Executive Management usually aimed at supporting organisations that are implementing eLearning for the first time.

Measures used in case studies are as much focused on revenue creation or productivity as cost savings. It indicates that the measures are therefore becoming more balanced. However, even though the measures are looking wider than cost savings, they are **still focused on financial measures** and non-financial measures are visibly absent (Cisco, 2002a; Hall & LeCavalier, 2000; Harvard Business School Publishing, 2002; KPMG Consulting, 2001; Nucleus, 2001; Wick & Pollock, 2004). The measures of performance designed during the study varied from:

- quantitative, with a low level of complexity, for example, the level of utilisation of the eLearning platform; to
- qualitative, with a **high level of complexity**, for example, the level of achievement of business performance. The more complex measures of performance included commitment, competence, motivation, coaching and understanding of eLearning value as a co-producer of business performance.

Critical success factors on which eLearning adopters focus are executive involvement and ownership, integrated eLearning, stable technology infrastructure, cultural change and focused measurement aligned with

company objectives. These critical success factors **create focus points** and therefore represent the current **theoretical leverage points** (Fireman, 2002; Carter, 2002; Coné & Robinson, 2001; Corporate Leadership Council, 2001a; Swanson, 2001b; Tanquist, 2001; The HRD Group Ltd (UK), 2003; United States Department of Agriculture, 2002).

The assumption that **critical success factors create focus** allows the researcher to compare the leverage point identified in the study to the critical success factors identified in literature. The leverage point of the study – a shared mental model of expectations between the participating stakeholders – therefore adds a different dimension.

While all the critical success factors that were identified in literature are included in the systems dynamic model (Figure 5.1), they do not represent the starting point, i.e. the creation of a shared mental model of expectations between all stakeholders in order to attain the desired results. The critical success factors also do not include the right level off stakeholders that were relevant in this study. In this study it was seen that while Executive Management might support the concept of eLearning from a sponsor perspective, operational management can sabotage and disable the implementation as they see eLearning as impacting on time to work and not as an opportunity to enhance their business performance.

The leverage point for this study **should however not be seen in isolation**. It is not the ending point of a study, but the starting point of a story told by Business and Learning and Development. Although the starting point is the creation of a shared mental model or picture of expectations regarding eLearning contributing to business performance, the message within the story told is also very powerful.

Following the arrows of the story in Figure 5.1, one can see that there are certain co-producers that influence the success of eLearning. These are:

- a positive mindset of operational management; and
- a stable technology infrastructure.

These two elements set the next layer of foundation upon which a successful eLearning story can be expanded. Another important point in the story is that

there is **no direct arrow on the diagram between the eLearning intervention and the profit of the business**. The story that is told says the focus group participants acknowledge that the eLearning intervention will increase the competencies of the learners. These newly acquired competencies must however become a reality in the workplace. Only through providing a better service, or selling more products, will a bigger profit be made.

So, while the focus group participants agreed that the eLearning intervention does not directly impact on the business results, they did agree that a well designed business centric eLearning solution **will provide them with the required competencies to sustain a business in the changing world of work**. The focus group participants also agreed through the model that there might be additional reasons for the lack of business performance. For example, the eLearning intervention could have been successful, but the lack of application of the learning though increased sales and services might the reason for lack of business performance.

Different people see different aspects of the **same phenomenon**. People's attitudes, beliefs and views influence how the relationships within the systemic whole are seen and reflected. The outcome of discussions is subjective and contained to the specific context in which it takes place. All events and trends are driven by a deeper structure of beliefs and assumptions of the individual (Wheatley, 2001).

Thus, the theory of Systems Thinking, which is part of the ontological basis for this study, clearly indicated that the **assumptions and beliefs of individuals frame** what they say and what they do. In this study, **a similar trend was observed**. However, when asking the focus group participants to reflect on this, they indicated that they appreciated the growth that they were exposed to in realising that there was more than one version of the truth out there.

When comparing the outcomes of the study to the literature, the researcher found that the **problems defined in literature and those found in Absa are the same**. However, the leverage point that resulted from the study provided a different answer to the problem, **solving it from an alternative**

perspective. This might be due to the design of the systemic model from an 'ought to be' view rather than an 'as is' view.

As a result of the systemic process, where the focus group participants were allowed to co-create the results of the study, additional literature was added to Chapter 2, based on concepts introduced to the study by the verifiers and the focus group participants. The literature topics include a wider research on measures as well as a more extended understanding of the performance framework that Business uses to articulate value.

5.5. Scientific reflection

The scientific reflection focuses on the contribution of this study to the 'scientific body of knowledge'.

The leverage point identified as a result of the research inquiry was the creation of "… **a shared mental model of expectations between the participating stakeholders**."

Thus, it is not only about the measures of eLearning and business performance. It is also about the alignment of expectations and the beliefs and assumptions around the measures resulting from the focus group participants. The measures that were defined through a process of common understanding will be successful as we are delivering and focusing on the expectations of our business partners – thus focusing on the '**return on expectation**'.

The **meeting of minds around the expectations will create a language,** at the point of value creation, that all role-players in the system understand. It is not a universal language, but one that is co-created through viable conversations between people, that have the influence to make the programme a success, and that can pro-actively support the learning.

Reasons of why it is difficult to link learning to business performance seems to **depict themselves in the philosophy of human beings**. Based on 'Who I am, I want to hear what is right for me'. For example, if it is assumed that senior executives in financial institutions function from a fundamentalist perspective, and learning people function from an interpretive or humanist

perspective, it emerges that the **type of knowledge that is 'true' and that each of the individuals 'believe' can differ significantly**. The creation of a shared mental model therefore does not lie only on the content level, i.e. which measures will show the 'truth', but on the 'internal being' level, where there is an alignment of minds about what they believe as real. So while the outcome of the study from a content level indicates that the creation of a shared mental model is a leverage point, the **underlying intent seems to be the creation of a shared epistemology of eLearning solutions**.

The focus group participants also recognised that it is sometimes necessary to slow down, have human contact and go back to basics in order to survive in a business world that is rapidly changing.

The accountabilities and responsibilities for the different activities required to improve business performance through eLearning became more apparent though the design of the systems dynamic model. The responsibility of learning lies with **both** the Learning and Development Department and with the Operational Managers. The Learning and Development Department needs to ensure a quality learning process and that all the relevant tools for learning are available. Operational Management needs to ensure that the support and environment (or opportunity to learn) for learning are available. Thus, learning has to be elevated to equal strategic importance than other business activities.

Learning **then becomes a co-created process** where the 'one believes in the other' (the eLearning stakeholders). Moving learning to this context reduces the formal requirements for financial or formalised metrics and ratios. During the design of the Systems Thinking diagrams, it became clear to both Business and the Learning and Development role-players that the instructional designers will not intuitively know how to address business centricity in their designs. Business role-players also acknowledged that including business centricity in the learning content would promote the success of learning and, ultimately, the improvement of business performance.

The **common framework of the systems dynamic model** also facilitated how Business and the Learning and Development role-players should

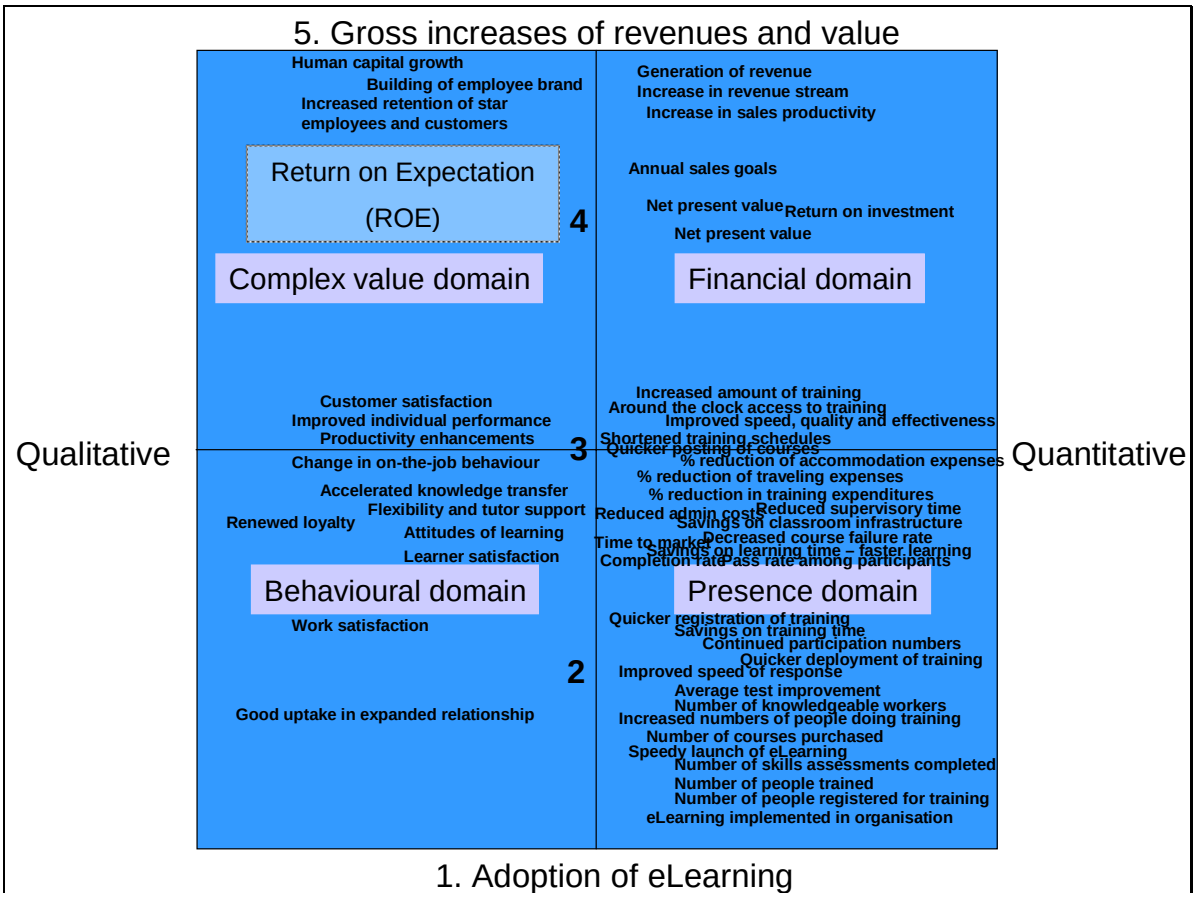
collectively and in an integrated manner, work together in order to ensure the improvement of business performance. It further illustrates to the stakeholders of eLearning that both the **tangible and the intangible measures** have to co-exist in order to realise the benefits of eLearning.

Thus, measurement is **relative to the context** in which is applied. Measurement of eLearning and articulation of its value in Business could be complicated due to:

- **measurements not linked** to business outcomes (line of sight of action vs. result);
- difficulty in defining and measuring the **actual outcome**; or
- the action of learning **not being part of a formal process** which then cannot be tracked.

Despite these difficulties, stakeholders still require an explanation of their investment. At this point the contracting of the 'Return on Expectations' (ROE) can contribute to the creation of a shared mental model about the required 'value' that eLearning must add to business performance. Linking the ROE back to literature, it creates an additional measure in the 'Complex value' domain. Figure 5.2 shows the positioning of ROE within the abundance of other measures available in literature.

Figure 5.2: A representation of the collective view of eLearning measures



The need for viewing measurement differently is illustrated in the example given by Cronje (2003) reflected on families and 'return on investments' stating that we do not determine the ROI of our families. He compared this to learning and organisations, declaring that organisations should accept learning as part of their being, and move away from linking money to learning.

5.6. Recommendations

From a **policy point of view**, financial institutions should re-look at the way that they measure and articulate the value of learning, as the study indicates that the intangibles of eLearning are as important as the tangibles. Organisations also need to look at taking ROI[4] out of the learning language as learning in itself does not create ROI. Business should take non-financial measures more seriously and officially include them as part of their financial statements in order to have a holistic picture represented in the balanced scorecard – finance, customer, process and learning and growth. Further

[4] Return on Investment

both qualitative and quantitative measures should be used in reporting to paint a total picture of a situation and not only a one sided financial picture. eLearning solutions should be integrated more effectively into the overall people management practices. All eLearning solutions should be designed and developed together with line management and the receivers of learning. This co-design should not only be a mechanistic involvement, but a passionate embracing of commitment and involvement by all stakeholders.

From a **practical point of view**, in-depth, viable conversations should take place between line managers (or the influencers of the learning) and the Learning and Development Department. The viable conversations should focus on the creation of common understanding about the exact nature of change that the eLearning programme must effect. During these conversations the individuals must let go of the notion to be only financially effective and also look at the change on the holistic system.

The process utilised for this study – the research methodology – can also be implemented to define and prioritise the eLearning problem and defining the system and measures of performance that 'ought to be'. From this, a leverage point can be identified that all relevant stakeholders can focus on to ensure success. Utilising this process will help business to implement small, but effective incremental changes that have an immediate systemic effect.

Further research:

During the research process, the researcher was continuously diverted into new areas of interesting potential research. These potential research topics are listed below.

- Expand on the epistemology of learning or learning organisations.
- Define the change enablement to move organisations to a new way of thinking about non-financial measurement of learning.
- Define the inter-dynamics between business, organisational learning and technology.
- Apply this methodology to other companies and comparing results.

Further development:

The actions relevant for further development are listed below.

- Investigate how to elevate learning to the same level of importance of other business processes.
- Develop a value system that defines what might be 'good' eLearning and what might be 'bad' eLearning.
- Develop an implementation plan for implementing the results of this study.
- Work with the classification of measures in literature in terms of their complexity.

5.7. Summary

This study explored the traditional challenge of articulating the contribution of eLearning to business performance in an unbounded way. Systems Thinking was implemented to question the beliefs and assumptions around how the contribution of eLearning is articulated. The results of the study indicate that the leverage point for successful contribution of eLearning to business performance is …

A shared mental model of expectations between the participating stakeholders.

Once Business and the Learning and Development Department starts going through the constructive cycle of the systemic model repeatedly, they will continuously build the **shared mental model of expectations**. This constructive cycle will build on the:

- Level of **visible support** of the line managers;
- Level of **clarity of business needs** to all relevant stakeholders;
- **Number of requests** from business for eLearning opportunities; and
- Level of **awareness and understanding** of appropriate eLearning interventions per target population.

This constructive cycle will therefore continuously allow eLearning to contribute to the improvement of business performance.

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Appendix A: Interview sheet for focus group participants to interview colleagues

The following cover letter was sent out to introduce the invitees to the concept of focus groups and the content of the study. The rationale for the study, the role that they have to play and the confidentiality was addressed in the letter.

Thursday, June 26, 2003

Dear participant

Re: Immersion into the eLearning system

> *A bonsai artist must continually respond to their trees' additional growth or damaged branches. Brian Kelly uses this as a metaphor for eLearning – You have to keep working on it, evaluating, and often adapting your vision to changes*.

Thank you for indicating that you are prepared to participate in creating a new future for Absa eLearning. This communication includes some preparation work for you in order to participate to the fullest extent in the focus group.

Please follow the instructions closely, as it will make your work much easier.

Instructions for immersion

The questions on the next page have been designed for you to guide you in broadening your understanding of eLearning contributing to business performance. Please do the following:

1. Arrange an interview with at least four colleagues.
2. Ensure that you understand the questions on the attached form. Should you have queries please do not hesitate to contact isabeauj@absa.co.za.
3. Complete the biographical data on the form.
4. Capture as much of the interviewee's answers as possible. You don't have to disagree with the interviewee. Just capture his or her answer in as much detail as possible. You will get your chance to share your opinion during the focus group.
5. **Bring the completed forms to the systems thinking session on 8 July to hand it in**.

Kind regards

Isabeau Korpel

Attached to the letter was an interview sheet detailing the immersion process that the focus group participants had to go through.

Interview sheet

Name of Interviewer:	
Name of person that you are interviewing:	
Date:	
Time:	

Questions

1. Have you participated in any eLearning intervention in Absa?
    a. Yes
    b. No

2. How did you feel about it?

    _____

    _____

3. How do you feel that eLearning can contribute to business performance?

    _____

    _____

4. What are the issues that you experience with linking eLearning to business performance?

    _____

    _____

5. What improvements or suggestions do you have to ensure that eLearning contribute to your business performance?

    _____

    _____

6. Who are the stakeholders that determine the value of eLearning to Business?

    _____

    _____

7. Which criteria do you use to determine the value of eLearning?

_____

_____

8. What is the order of importance of the criteria?

_____

_____

The end

Appendix B: Moderator guide detailing the focus group inquiry process

The moderator guide outlined the conversations that the moderator had to facilitate with the focus groups. During the focus group sessions, the content of the moderator guide was presented to the focus group participants on slides.

Group People Management

eLearning and Business performance

Intervention Identification Process

Classical problem solving methodology is based on the following assumptions:

- There is a problem and we have the answers for the problem.
- Solving problems will improve the situation.
- To improve is to get rid of problems.
- Ideal/normal situations are without problems.
- We can separate the solving of problems and the implementation of the solution.

Principles related to a systemic approach to problem solving:

- The symptom is seldom the cause; the problem is seldom the symptom. In most cases symptoms are only messengers.
- There are interlocking systems requiring management to improve them.
- We need to change our level of thinking to improve systems. A problem cannot be solved at the level of thinking that created it.
- If we assume something is simple, then we are most probably already mistaken — specifically in the case of soft situations with a high people impact.
- Becoming aware of our own assumptions is the vital first step to improvement.

Problems and solutions:

- Knowing the solution does not mean we know how to solve the problem. Knowing the solution often inhibit us from solving the problem.

- Group dynamics is such an overriding factor that it may destroy all the benefits of knowledge, methods and procedures.
- To become empty of pre-dispositions towards a solution enhances the process of problem solving.

Mental traps inhibiting mind shifts:

- Changing mental models, our own thinking and learning continuously is difficult in practice.
- We are trapped in a situation, firstly by the way we think about it.
- Conceiving a whole new way of thinking is extremely difficult.

Expected outcomes of a group learning process:

- Primary
  - ➢To establish which systems need to be managed.
  - ➢To establish their respective measures of performance.
  - ➢To indicate 3-5 important interventions required to improve the overall functioning of the section, group or system.
- Secondary
  - ➢Shared understanding of the dilemmas faced by the group.
  - ➢A better understanding of the factors that influence behaviour in the system.
  - ➢Greater alignment on what actually affects performance in the system.
  - ➢An understanding and agreement on priority actions.

Rules of the game (IIP):

- Equality: all views are valuable.
- Respect new and other voices.
- Time management is important to create continuous momentum.
- Focused and concentrated efforts enhance the end product.
- Diversity creates space, new perspectives and leverage.

People Management

Despite our best efforts there are still issues related to improving business performance through eLearning. Why is this so?

What are the problems (or symptoms) related to our inability?

- Individually list using Post-it notes.
- One problem description per Post-it note.
- Descriptive statements contain a verb with 3-5 words.
- 7-10 descriptions per person (at least).
- Duplication is fine.
- Put Post-it notes on flipchart.

Group problem statements into clusters of strongly linked themes:

- Group or sort same factors together.
- Do not talk for first 5 minutes. Sort in silence to focus on the meaning behind and connections amongst all the ideas, instead of emotions and history that often arise in discussion.
- Write a problem statement per grouping — Don't interpret the data — Work with it on the same level that it was created. Simply describe it in a statement with 3-5 words using a verb that combines the grouping's central themes. If you take the data a logical level up, you are already working towards solutions.
- Write one summary/theme/problem statement per grouping of Post-it's.

Diagraph the Interrelationships:

- Transfer statements to a clean flipchart and arrange in a circular format, leaving as much space as possible for drawing arrows.
- Start with statement 1. Does it influence 2, or is it influenced by 2 - which factor is dependant on which? Is there a cause-effect relationship?
- Show the strength of influence by drawing an arrow from the stronger to the weaker statement. Is this problem influencing that problem more, or vice-versa?
- If same strength or no relation, no arrow.
- Document the reason for your decision.
- Continue to evaluate statements in clock-wise fashion until all statements have been compared to each other.
- Identify driver problems from statements with the most arrows going out.
- Choose 2-3 most important drivers.

System in Focus:

- This is the diagnostic phase in the process. Look **through** the driver problems (like looking through glasses — you don't see the glasses).
- What is the underlying system connecting/linking the driver problems — find the system that will alleviate the driver problems.
- This can be an already identified but malfunctioning system.
- Often it is not yet defined or identified in organisational terms.
- Write as: It is a system that will …….
- Or: It is a system that will do X for Y (client/beneficiary) in order to achieve Z (purpose).
- Select one system that will contain all the driver problems.

Examples:

- It is a system that will create an aligned and focused capacity to ensure the delivery of PM information that adds value to business decisions.
- It is system that will: attract and retain high calibre (skilled) staff based on defined roles and required competencies(es)
  For: PM of Absa
  In order to: ensure adequate numbers of skilled resources (business and technical), which will enable appropriate system ownership and proper change management.
- It is a system that will:
  - cause ownership.
  - involve key role-players from all representative areas to ensure an effective people management information system to Absa, that will enable value adding service.

Stakeholder analysis and rating:

- Determine the primary stakeholders for the identified system in focus. Stakeholders can cause the system to fail if they don't support it.
- Can be within or outside the system. A stakeholder may choose to take a stake in the system in focus.
- Stakeholder analysis and rating (2/2).
- Can use criteria such as power to influence the system in focus and satisfaction level to identify key stakeholders.
- Select 2-3 most important stakeholders of system in focus.

Identify key measures of performance (MOPs):

- For each of the 2-3 important stakeholders, determine their measures of performance (success) of the system in focus. Consider how they will measure efficiency and effectiveness.
- What would indicate for the stakeholder that the system is producing the right things?
- Note: MOP should be measurable; if you can say the measure varies (increases or decreases) it is a usable variable. Common types of variables – next page.
- MOPs should be directly related to SIF and should not measure the bigger system, but the SIF.
- Choose the 2 most important MOPs. (If you cannot choose, refer to importance of stakeholder).

Common Types of Variables:

- Goals
  - ➢Desired level of …
- Thinking/Feeling/Perception.
  - ➢Level of commitment to …
  - ➢Level of alignment around …
  - ➢Level of clarity about …
  - ➢Perceived level of …
  - ➢Morale
- Demand
  - ➢Pressure to …
  - ➢Need for …
  - ➢Demand to …
  - ➢Gap between … and …
  - ➢Competitive pressure

Examples of stakeholders:

- Top management
- PM systems management forum.

Examples of measures of performance:

- Level of user satisfaction.
- Cost of delivery.

Identification of co-producers:

- For each MOP, determine 5-8 primary co-producers of the MOP. A co-producer is a variable that will cause the MOP to vary (change up or down).
- Guidelines for naming co-producers:
  - ➢ use nouns or noun phrases (not verbs or verb phrases).
  - ➢ a well named co-producer fits into phrases like amount of, number of, size of (See next page for common types of variables).
  - ➢ use neutral or positive terms where possible, eg. Job satisfaction rather than job dissatisfaction.

Common Types of Variables:

- Goals
  - ➢Desired level of …
- Thinking/Feeling/Perception
  - ➢Level of commitment to …
  - ➢Level of alignment around …
  - ➢Level of clarity about …
  - ➢Perceived level of …
  - ➢Morale
- Demand
  - ➢Pressure to …
  - ➢Need for …
  - ➢Demand to …
  - ➢Gap between … and …
  - ➢Competitive pressure

Building a System Dynamics Loop:

- Arrange the co-producers in a causal Systems Diagram.
- Start with one MOP and ask which of the identified co-producers cause the MOP; move to the next co-producer - is the relationship direct or through the previous co-producer.
- The co-producers should be arranged to show how they interact to produce the MOP. Develop a causal string that creates the MOP by using arrows. Never use bi-directional arrows.

Example of building a System Dynamics Loop:

- Complete the forward loop by identifying the consequences of the MOP (often money and resources). Name 5-9 variables.
- Close the circular causal loops. A loop is a closed circle of co-producers/variables.
- Check that the logic of the diagram represents current reality that causes the MOP to change up or down.
- Model for insight. Do not try to model full complexity.
- Repeat steps for second MOP.

Build a Systems Dynamics Model:

- Combine the two causal loops into one diagram.
- Start to look for variables that are the same in both loops. This may require re-defining some co-producers/variables so that they have common descriptions.
- Put the common co-producers down in the middle and build the causal diagram from that point. Use all the information from both loops. Search for new connections. Redraw diagrams when and where necessary.
- Ensure that the resulting diagram logically hangs together. Check that all arrows and paths make sense, and that the integrated diagram explains the original measures of performance.
- Define relationships between variables: S=change in the Same direction and O=change in the Opposite direction.

Identify Interventions:

- Using your SDM, determine 4-7 high leverage points that will change in a sustainable way the performance of the system in focus.
- Search for new connections to make the SDM work better.
- Identify appropriate interventions that use the leverage points. In other words, what can be done to “bring about” the leverage points.
- Identify which conversations have to take place to initiate these interventions.

Appendix C: Observation sheet for collecting behavioural data on the focus group participants

The observation sheet was designed and implemented by the observers. An example of an observation sheet is shown below. Basic theoretical guidelines were provided to the observers. The observers reflected on the specific group dynamics, mental models (if evident) and the group synergy. These sub-classifications were only for the benefit of the observation session and were combined into a reflection on behaviour in the main research report.

Observation sheet

Observer: _____ **Session:** _____

Behaviour classification	Behaviour observation	Interpretation
Group dynamics		
Mental models		
Synergy		

Appendix D: Questionnaire for the electronic survey

The objective of the electronic survey was two-fold:

1. To collect biographical information of focus group participants; and
2. To determine the reaction of the focus group participants to the inquiry process.

Dear participant

Thank you for your valuable input to improve the contribution of eLearning to business performance. We appreciate your energetic and passionate participation as well as the candour with which you gave feedback to each other. I can only describe it as a magic process and I am looking forward to working with you again.

In order for me to determine the process there are some closing questions that I would like to ask. The **first** part of the questions is about you and the **second** part is about the process. Please, again, be as honest as you like!

Part 1: Biographical information

1. Employee number:
2. Initials, name and surname (Optional):
3. Job description:

   _____

   _____
4. Male/Female:
5. Age:
6. Home language:

   _____

   _____
7. How long have you been in your current job position?

   _____

   _____

8. What are your qualifications?

_____

_____

9. What was your occupation prior to coming to Absa?

_____

_____

Part 2: Post Focus group questionnaire

Instructions:

Please circle the answer that you feel is most appropriate. In the open space please provide honest feedback.

Question 1

How did you feel about the Systems Thinking process?

a. I enjoyed the process.
b. I learnt new things.
c. I did not enjoy the process and felt that it was a waste of time.
d. I felt intimidated by the video being made.
e. I did not feel as if I could make a contribution.

Question 2

How did you feel about the logistical arrangements of the process? Please complete the percentages for each aspect:

a.	Food:	Good	No comment	Poor
b.	Venue:	Good	No comment	Poor
c.	Arrangements:	Good	No comment	Poor

Question 3

Did you clearly understand the objectives of the Systems Thinking process?

a. The objectives were clearly understood.
b. Some of the objectives were unclear.
c. All of the objectives were unclear and could not be understood.

Question 4

Were all your questions answered during the Systems Thinking process?

a. All my questions were sufficiently answered.
b. 70% of my questions were answered.
c. 30% of my questions were answered.
d. None of my questions were answered.
e. I had no questions.

Question 5

Will the results of the systems thinking process contribute to your working environment?

a. Yes, the content will definitely change the way I do my job.
b. Yes, but it will take some time to do everything suggested.
c. No, the content will not be useful at all.

Question 6

Which one of the following terms describes your overall learning best?

a. Excellent
b. Good
c. Fair
d. Poor

Question 7

Did the Systems Thinking process meet your expectations?

a. Definitely
b. Adequately
c. A little
d. Not at all

Question 8

Three days of participating in a focus group was…

a. Too long.
b. Adequate.
c. Too short.

Question 9

How much did you learn during the systems thinking process?
I increased my knowledge and skills about this topic by …

a. more than 90%.
b. more than 70%.
c. more than 50%.
d. less that 50%.

Question 10

Would you motivate your colleagues to participate in a similar session?

a. Definitely
b. Maybe
c. Not at all

Question 11

Which of the following topics did you learn most about during the Systems Thinking process?

a. The systems thinking process.
b. eLearning.
c. Business performance.
d. The relationship between eLearning and business performance.

Closing

Thank you for sharing some more information with us. If you have any further suggestions, changes or additions, please note them below. We appreciate all help and every suggestion will be considered.

_____

_____

_____

_____

Please complete this document before **25 July:**

1. Online and mail a saved copy to isabeauj@absa.co.za **or**
2. Fax your copy for attention: Isabeau Korpel **011 350 5364**

Appendix E: Costs of the focus group research

The calculation of the costs for doing the focus groups was based on the model provided by Greenbaum (1988). The costs per item are reflected in Table E.1.

Table E.1: Costs of the focus group research

Cost item	Description / Comment	Number of units	Unit price (R)	Total cost (R)
1. Facility costs	Facility included a room with video conferencing recording equipment. Thirty-two people can be accommodated in the facility.	24 hours	300[1]	72 000
2. Screening costs	Screening of the learners was done by the contact centre co-ordinator.	5 hours	400[2]	2 000
	Screening of the other role players was done by the researcher	10 hours	400[3]	4 000
3. Refreshment costs	**Day 1**: Includes arrival refreshments, two tea breaks and lunch.	36 people	55[4]	1 980
	Day 2 and 3: Includes arrival refreshments, two tea breaks and lunch	25 people x 2 days	60[5]	3 000
	Verifier sessions	6 people x 2 days	55[6]	660
4. Video taping	Videos	10	10	100
5. Moderator	Moderator is internal to Absa	24 hours	400[7]	9 600

[1] Hourly rate of the video conferencing facility.
[2] Average hourly cost to company rate of the Contact Centre co-ordinator.
[3] Average hourly cost to company rate of the researcher.
[4] Cost per head.
[5] Cost per head.
[6] Cost per head.
[7] Average cost to company rate for the moderator. Only time and materials relevant.

Table E.1: Costs of focus group research, continued

Cost item	Description / Comment	Number of units	Unit price (R)	Total cost (R)
6. Observers	Two observers	24 hours x 2	400[8]	19 200
7. Verifiers	3 Verifiers for two sessions	8 hours	500[9]	4 000
8. Focus group participants	36 participants[10]	8 hours	200[11]	57 600
	25 participants	16 hours	200[12]	80 000
10. Researcher	1 Researcher	48	400[13]	19 200
			Total	**R273 340**

[8] Average cost to company rate for the observers. Only time and materials relevant.
[9] Average cost to company rate for the verifiers. Only time and materials relevant.
[10] Time of all the participants is calculated at an average rate.
[11] Average hourly cost to company rate of the participants. No co-op fees were paid.
[12] Average hourly cost to company rate of the participants. No co-op fees were paid.
[13] Average cost to company rate for the researcher. Only time and materials relevant.

Appendix F: Résumés of the observers

Lee-Anne Deale is an Industrial Psychologist. She mastered in Industrial Psychology. She is currently an Organizational Development Consultant and an experienced qualitative researcher in the area of customer research.

Sophia Nawrattel has a Masters in Business Administration (MBA). She is associated with the SA Institute of Bankers (FIBSA). She has banking and general management experience within the financial industry for sixteen years.

Appendix G: Résumés of the verifiers

Verifier 1: Lawrence Bongani Mlotshwa

Lawrence Bongani Mlotshwa is currently the Executive General Manager of People Management at Absa Bank.

Lawrence holds the following qualifications:

- B.A. HED – Fort Hare University
- EDP – University of Cape Town
- M.B.A. – Henley Management College – U.K.

Lawrence has worked for various organisations such as Unilever, Sun International and Nedcor Bank. Lawrence's extensive experience includes:

- Organisation Development
- Change Management
- Industrial Relations
- H.R. Development
- Competency based Management
- Performance Management
- Talent Management
- Leadership Development
- Marketing and Sales
- Coaching and Mentorship
- Strategy Development
- Project Management

Lawrence spends his leisure time, watching soccer and reads extensively about organisation strategy and change management.

Verifier 2: Dr Beatrice Horne, Learning Resources Solutions

Academic qualifications:	B.Soc.Sci (Hons) RAU
	M.Soc Sci (Cum Laude) RAU
	D.Litt.et.Phil (RAU)
	MBL (Unisa)
Specialisation:	Human Capital Consulting
Position in firm:	Director: Sales

Professional experience

Beatrice completed her Ph.D in November 1999. She was awarded a total of ten merit bursaries throughout the course of her studies. In November 2002, she completed the MBL program at the SBL (Unisa).

Her work experience involves part-time and full-time private practice work over a period of 7 years. In this business she was engaged in a variety of consulting for individuals, educational institutions and businesses.

Her formal employment experience includes work in a South African NGO, an international health communications company, as well as for Thomas International and Deloitte & Touche Human Capital Corporation. She occupied account management, marketing and business consulting positions in these businesses.

Over the years she has been exposed to local and international business consulting regarding human capital issues: leadership and management development, selection system design, executive assessment, performance management, change management, etc.

At the time of the execution of this study she was employed by Learning Resources as Director of the LRS division specialising in the areas of blended learning, eLearning and other areas of human capital development.

Verifier 3: Barry Vorster has been a member of the eLearning (computer-based training) fraternity since 1994 and holds a masters degree in Computer-Aided Education from the University of Pretoria. He began his career as a lecturer in Afrikaans Linguistics with the University of Potchefstroom in 1990. Since then he has worked at the University of Zululand, Absa Bank, Africa Growth Network, IBM/Lotus and AST, and has recently joined eGEDI Learning Solutions. He will be involved in business development and strategic consultancy services for eGEDI's clients.

Whilst at IBM he spent two years in Botswana as the regional manager for Lotus Professional Services (LPS) and was awarded the Lotus Professional Services Person of the Year Award in 1999 and 2000. As member of the LPS Intellectual Capital Management group, he taught courses on business innovation and engagement management to new LPS recruits at the LPS Academy in Brussels. He has also presented several papers on Knowledge Management and eLearning.

His clients include - Unisa School for Business Leadership, Rand Merchant Bank, BMW, DaimlerChrysler, Botswana Development Corporation, Vista (Orange) Cellular, Botswana Police Service, Botswana Department of Education, Botswana Power Corporation, Bank of Botswana, British American Tobacco, Kumba Resources and Absa Bank. His last engagement was with Eskom where he assisted them with the selection and procurement of a Learning Management System.

Appendix H: Letter of invitation to the focus group participants

Learning and Development
2nd floor Towers East
Johannesburg
2000
Thursday, May 29, 2003

Dear [participant name]

Re: Participation in the future of eLearning in Absa

> *A bonsai artist must continually respond to their trees' additional growth or damaged branches. Brian Kelly uses this as a metaphor for eLearning – You have to keep working on it, evaluating, and often adapting your vision to changes*.

eLearning is part of the Absa strategy to obtain and maintain a competitive advantage through human capital. eLearning is also part of the eBusiness strategy of Absa that states that Absa wants to dominate this market. Absa eLearning, also known as ActiveLearn, has been in existence since 1999. Various lessons have been learnt and some 20 000 learning interventions has been completed.

It is now time to take eLearning to a next level of maturity. We would like you to participate in this process in order to co-create a future state for eLearning. The results of this process will also be used for an academic study to ensure that Absa is truly seen as having a benchmarked eLearning solution.

We require your presence at an eLearning Systems Thinking Workshop on 8 July 2003. Two further workshops will be held on 15 July 2003 and

16 July 2003. More details regarding the workshops will be sent out at a later stage.

Please confirm you participation in these workshops by replying to isabeauj@absa.co.za before 15 June 2003.

We are looking forward to your participation and valuable input in creating the future of eLearning for Absa.

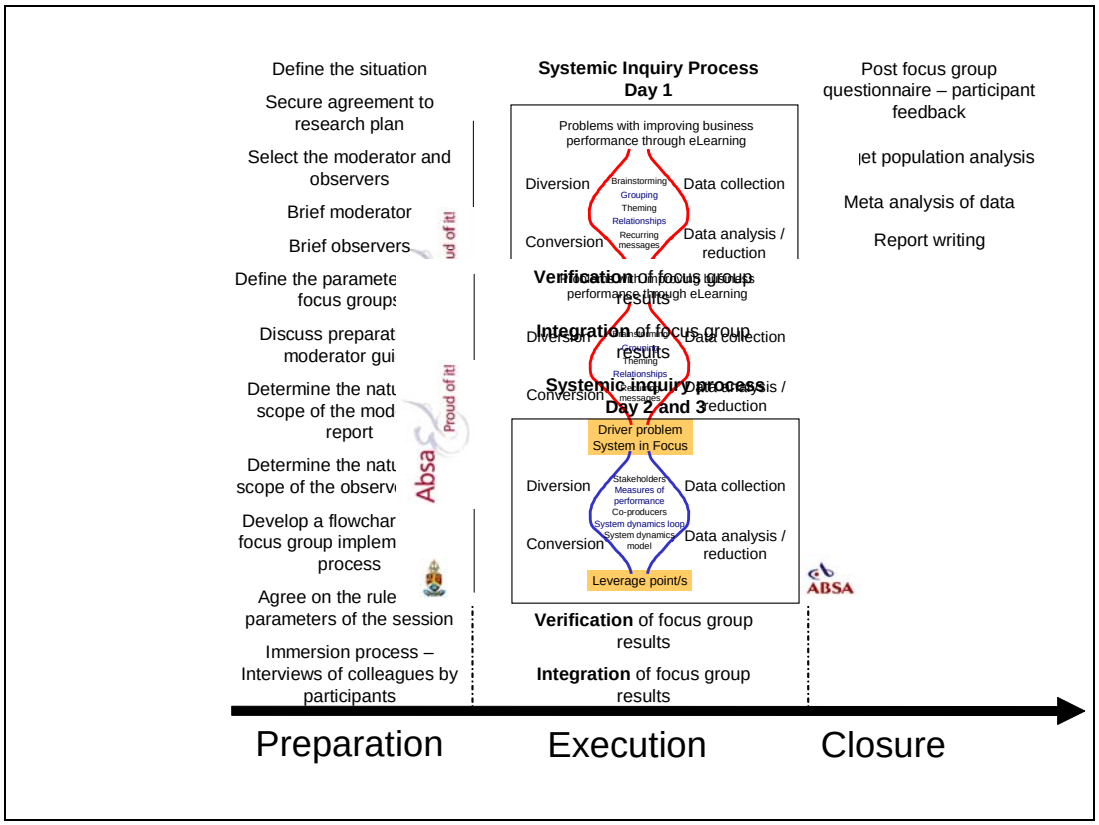
Kind regards

Bev Judd
Manager: People Management: Learning and Development: D&D
cc.
Murray Burger
Lawrence Mlotshwa

Appendix I: Flowchart of the implementation of the research inquiry process

Figure I.1 is a pictorial flowchart of the 3 phases – Preparation, Execution and Closure of the implementation of the research study.

Figure I.1: Pictorial flowchart of the implementation process



Appendix J: Phase 1: Preparation for focus groups

Table J.1: Description of systemic process for data collection – Phase 1

Phase	Step	Procedure
Phase 1: Preparation	Define the situation (Greenbaum, 1988)	• **Summary of the situation**: Absa is a financial institution that deployed eLearning. The Absa Contact Centre specifically utilized eLearning as a solution to Socialization and Fraud Awareness. Specific feedback was given that the eLearning solutions did not add value. The feedback also included reports on resistance from middle management about eLearning as a solution. There seemed to be disagreements about the context of the value add of eLearning for business performance. • **Purpose of the focus group sessions**: The purpose of conducting this research is to determine a leverage point/s to improve business performance through eLearning. The systems inquiry process is used to create meaning from human interactions (conversations about the problem). • **Utilisation**: The information from the research is utilised in two ways: 1. To solve the practical problem that exist between the Learning and Development Department and the Business Unit; and 2. To add to the structure of knowledge that exists around the contribution of eLearning to Business performance in the field of eLearning. • **Composition**: The types of people who were included in the focus group were people: ❖ with exposure to the implemented eLearning programmes. ❖ who played a role during the implementation. These role-players were determined during a conversation with Bev Judd (Instructional Design manager on 2 April 2003 at Absa Towers North, Johannesburg). The role-players identified are needs analysts, instructional designers, implementers, online facilitators, technologist, learner support, learner administration, operational managers, team leaders and learners. • **Budgets**: Absa sponsored the total research budget. The traditional cost elements of the focus groups were calculated in terms of time and materials came to R 273 340 and are attached as **Appendix E**.

Table J.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 1: Preparation	Secure agreement to research plan (Greenbaum, 1988)	• The research plan was contracted in formal meetings with the following stakeholders: ➢ Laetitia van Dyk: Group General Manager People Management for doing the study in Absa. ➢ Lawrence Mlotswa: General Manager Specialist Services, for doing the study in eLearning, utilising Absa data and resources and participating in the study as an internal verifier. ➢ Murray Burger: Head: Learning and Development for utilising resources in eLearning. ➢ Bev Judd: Manager Design and Development for participating in the study and contracting utilisation of resources. ➢ Elna Steyn: Business co-ordinator for contracting resources to participate in the focus group sessions. ➢ Esme Ehlers: General Manager: People Management Projects for allowing me time to do the research in working hours. ➢ Barry Vorster: Consultant for participating in the study as a verifier external to Absa. ➢ Beatrice Horne: Learning Resources (Pty) Ltd. for participating in the study as a verifier external to Absa. ➢ Johannes Cronje: Mentor for PhD programme.
	Select the moderator (Greenbaum, 1988)	The moderator was selected based on her extensive understanding and experience in people behaviour and effectiveness in conducting interviews. The moderator also displayed previous competent behaviour in handling group dynamics without becoming involved in the content being facilitated.
	Select the observers (Greenbaum, 1988)	• Two observers were selected based on: ➢ Knowledge of the Absa system; ➢ Competence in systemic thinking and observation of people processes; and ➢ Availability on the days of facilitation. • The résumés of the observers are attached in **Appendix F**.
	Select the verifiers and scribe	• Three verifiers were selected. A scribe was also requested to document the details of the feedback provided by the verifiers. • The first verifier was selected based on Absa experience. The verifier is also a stakeholder in Absa eLearning. The verifier was internal to Absa. • The second verifier was selected based on industry eLearning expertise. The verifier was external to Absa, but had prior experience in the Absa system. • The third verifier was selected based on pragmatic eLearning implementation expertise. The verifier was external to Absa (The résumés of the verifiers are attached in **Appendix G**).

Table J.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 1: Preparation	Brief the moderator (Greenbaum, 1988)	• A meeting was held on 13 June 2003 to discuss the process with the moderator. • The following topics were discussed: ➢ Background of the research project. ➢ Expectations were clarified in terms of the moderator's responsibility. It was agreed that the moderator would facilitate the systemic inquiry process during the focus group sessions. The moderator would be expected to participate in the post focus group discussion. ➢ It was also contracted that no research report would be expected from the moderator as the data collected and analysed would be captured by the focus group participants.
	Brief the observers (Greenbaum, 1988)	• A meeting was held on 1 July 2003. • The objective of the briefing was to: ➢ Enable the observers to get the maximum possible out of the group sessions that they observed. ➢ Communicate the rules of the sessions relating to the observers. ➢ Ensure that there was shared meaning between the researcher and the observers as to the information that they should collect (Greenbaum, 1988). • The following topics were discussed at the meeting: ➢ Who the participants were to be; ➢ Introducing the moderator and allowing a raport to develop between the moderators and the observers. ➢ Review of the moderator guide. • Research documentation was provided to the observers as a basis to design the data collection tool (Morgan, 1989; Saunders, Lewis & Thornhill, 2000; Templeton, 1987).

Table J.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 1: Preparation	Define the parameters of the focus groups (Greenbaum, 1988)	• The definition of the parameters of the focus groups was done in conjunction with the moderator, Bev Judd – manager of the Instructional Design Department – and Elna Steyn – the co-ordinator of the Business Unit resources. • Due to the number of people responding to the research project, four focus groups were designed for Day 1. Three focus groups were designed for Day 2 and 3 of the research process. It was agreed that the research would take place within two weeks due to: 1. ensure the availability of the participants, moderator and observers; 2. accommodate the nature of the systemic inquiry process; and 3. maintain momentum in the research process. • Due to practicality and time saving, it was decided to expose all the focus groups to the systemic inquiry process at the same time and place. The advantage was that all the groups would experience exactly the same process, venue and moderator behaviour. The disadvantage was that the external validity was compromised as the prospect of generalising the study reduced significantly. This disadvantage was countered by the argument that the systemic inquiry process is sensitive to context and that the research strategy was to be a bounded qualitative case study. A decision was made that the disadvantage did not greatly influence the contribution that the research could make. • The focus group research was held at Absa Towers East, Johannesburg, based on: ➢ The accessibility of the venue to all the focus group participants; and ➢ The situation of the required video conferencing venue. • Each of the focus groups consisted of a mix of role-players identified as participants in the study. Care was taken to ensure that the Learning and Development participants did not overwhelm the Business Unit participants. Further to this, the moderator ensured that there were no hierarchical reports in the groups, to limit intimidation.

Table J.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 1: Preparation	Discuss preparation of moderator guide (Greenbaum, 1988)	• The moderator guide existed in the format of a slide show depicting the systemic inquiry process. The content of the slideshow is attached as **Appendix B**. The moderator developed the original slides. The researcher adapted the content of the slides to ensure that it was aligned with the aim of the research project.
	Determine the nature and scope of moderator report (Greenbaum, 1988)	• No moderator report was required as the focus group participants were accountable for capturing their thoughts and outputs. The researcher was responsible for writing the focus group report in the context of the longer research report.
	Determine the nature and scope of observer report (Greenbaum, 1988)	• The observers were contracted to provide a summary report after the total system process was completed. • The observers were contracted to note: ➢ Group dynamics; ➢ Mental models; and ➢ Synergy within the groups. • The observations were reported per subsidiary research questions.
	Develop a flowchart for the focus group implementation process (Greenbaum, 1988)	• A flowchart was developed for the focus group implementation process and is attached as **Appendix I**. This tool was used for contracting deliverables and tracking actions and dates.
	Agree on the rules and parameters of the session (Greenbaum, 1988)	• It was decided to utilise only one moderator. Two observers were requested due to the intensity and complexity of the observation process and the request for the development of an observation report. • The moderator was briefed to facilitate the systems inquiry process and not to provide input towards the content within the process. The observers were requested not to converse with the participants regarding the process or the content. This rule was also valid for the researcher.
	Execute immersion process (Heroldt, 2003)	• An interview sheet was drawn up and provided to all the focus group participants on 25 June 2003, two weeks prior to the focus group sessions taking place. • The participants were requested to bring the results of the interviews to Day 1 of the focus group sessions. • The participants were requested to interview three to five colleagues. • The results of the interviews were used to improve the width and depth of the participant's inputs during the system inquiry process (focus groups).

Appendix K: Phase 2: Execution – Day 1

Table K.1: Description of systemic process for data collection

Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification	Systemic inquiry process – Day 1	• The first focus group session took place on 8 July 2003 at Absa Head Office. • Coffee and tea was provided to the focus group participants prior to the interview. This allowed the delegates to communicate with each other. • The session formally started at 9:00 am. • The different role players were welcomed and introduced to each other: ➢ Researcher; ➢ Moderator; ➢ Observers; ➢ Video conferencing administrator; and ➢ Participants. • The researcher set the scene and explained the process to the delegates. • The moderator discussed the moderator guide with the participants, highlighting the principles of the systemic inquiry process. • The problem statement was discussed: Despite our best efforts there are still **issues** related to **improving business performance through eLearning**. Why is this so? • The participants individually documented problems related to the problem statement. • **Four** focus groups were formed. The problems of the individuals were put together.
Phase 2: Execution - Data collection, analysis, observation and verification (continued)	Systemic Inquiry Process – **Day 1** (continued)	• The problem statements were sorted into clusters of strongly linked themes. • Each group discussed the reasoning for the clusters. • The groups were then required to write a summary problem statement that represented the message of each the clusters. • The participants then had a catered lunch. • The participants used the clustered themes to draw **digraphs** depicting the cause and effect relationships between the clusters. A **reasoning statement** was recorded for each of the relationships. • The **driver problems** were identified.

Table K.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification	Systemic inquiry process – **Day 1** (continued)	• Each of the four focus groups developed a draft **system in focus**. • The **observers** were present throughout the process and documented the contracted behaviour. • The day was concluded and the participants were thanked for their participation. The next focus group session was contracted with the focus group participants.

Appendix L: Phase 2: Execution – Verification session

Table L.1: Description of systemic process for data collection

Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification	Verification of focus group results	• The verification session took place two days later after each focus group session, on 10 and 18 July 2003 at 8:30 at Absa Head office. Tea and coffee was provided. **Figure L.1:** The verifiers (Barry Vorster, Lawrence Mlotswa and Beatrice Horne)  • The verifiers were taken through the same introductory content as the focus group participants. • The data collected and analysed by the participants was presented step by step to the verifiers. The comments of the verifiers were attached to the data and a scribe documented the main themes in the conversations. **Figure L.2:** The scribe (Wendy Sergel)  • The verifier session ended at 1:00 pm with lunch.

Appendix M: Phase 2: Systemic inquiry process – Days 2 and 3

Table M.1: Description of systemic process for data collection

Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification	Systemic inquiry process – Day 2 and 3	• The second focus group session took place on 15 and 16 July 2003 at Absa head Office. • Coffee and tea was provided to the focus group participants prior to the interview. The participants mingled and shared experiences from the previous focus group session. • The session formally started at 9:00 am. • The different role players were welcomed and introduced to each other: ➢ Researcher; ➢ Moderator; ➢ Observers; ➢ Video conferencing administrator; and ➢ Participants. • The moderator set the scene and explained the process to the participants. • The researcher presented the **integrated digraph** to the focus group participants in order to verify the content and create shared meaning regarding the work that was done. • Feedback was given to the group regarding the **comments of the verifiers** on the process.

Table M.1: Description of systemic process for data collection (continued)

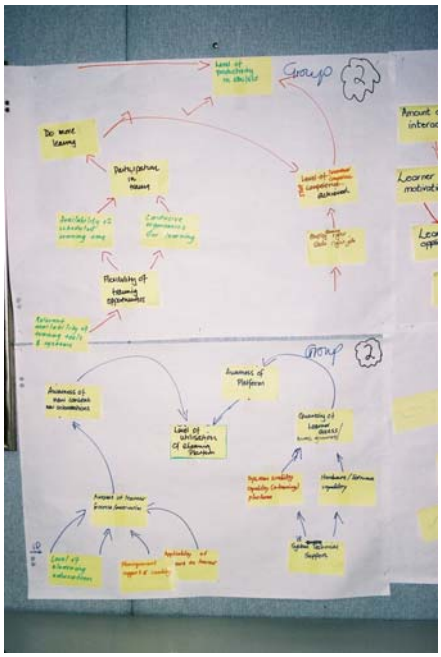
Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification (continued)	Systemic inquiry process – Day 2 and 3	• The objectives for the next two days were set and the process and theory explained. • The participants were divided into **three groups**. The groups were mixed to represent all the roles specifically business and learning. • The **System in Focus** created in Session 1 was reviewed and one integrated System in Focus statement was agreed on. This was critical, as it formed the basis of the discussions for the next two days. • The **primary stakeholders** involved in the System in Focus were identified. The two most influential stakeholders were prioritised. • The **key measure of performance** for each one of the stakeholders was identified. • The **co-producers** for each one of the measures of performance were identified. • A **systems dynamic loop** was built for each of the measures of performance utilising the co-producers. **Figure M.1:** Example of a systemic dynamic loop  • Combining the two systems dynamic loops created the **systems dynamic model**. One systems dynamic model was produced for each of the three groups. • The participants were requested to tell their **system dynamic model 'stories'** and to document this on the model. • The leverage point/s was identified by analysing the SDM and determining the start of the story or the variable that influenced the SDM the most.

Table M.1: Description of systemic process for data collection (continued)

Phase	Step	Procedure
Phase 2: Execution - Data collection, analysis, observation and verification (continued)	Systemic inquiry process – Day 2 and 3	• The **observers** were present throughout the process and documented the contracted behaviour. • At the end of the session on Day 3, the focus group participants were requested for feedback on: ➢ The systemic inquiry process; and ➢ Their own learning during the process. • The participants were thanked for their contribution and the session was closed.
	Post focus group discussion with moderator and observers	• The **discussion session** followed directly after the focus group sessions on Day 3. The following questions were discussed: ➢ What worked well? ➢ What could be improved? ➢ General open discussion.

Appendix N: Phase 3: Closure of systemic inquiry process

Table N.1: Closure of systemic inquiry process

Phase	Step	Procedure
Phase 3: Closure of the process	Post focus group questionnaire	• The questionnaire was sent to the participants via email. Feedback was requested within one week. Two channels for feedback were provided: ➢ Email: isabeauj@absa.co.za; or ➢ Fax: 011 350 5723.
	Target population analysis	The first part of the questionnaire focused on obtaining the personnel number from the participants as well as information not available on the Absa personnel system. The personnel number was used to obtain more information from the personnel system regarding qualifications, age, etc.
	Meta analysis of data	• Some of the data collected during the focus group sessions was also analysed by the focus group participants. During the meta-analysis of the data, the researcher reported on the following themes: 1. What were the recurring messages between the focus groups? 2. What was the unique value-add of each focus group?
	Report writing	The focus group report was written in the period August to September 2003. Feedback was given to the eChannels Contact Centre and to Learning and Development. Both role players had follow-up sessions based on the outcomes of the research results.

Appendix O: Problem statements for Focus Group 1

Note: None of the problems statements were edited. They were typed as the focus group reflected it.

Theme 1: Lack of motivation due to learners being dependant on instruction to learn

Problem 1

Motivation lacks when training is not compulsory and not in a class room environment.

Problem 2

It is not set as high importance and an exiting tool that can be used for self development improvement of business performance.

Problem 3

To have thorough feedback survey to see how practically is being going, Learning, gained & understand.

Problem 4

Learner's does not take ownership of the Learning.

Theme 2: There is no consensus regarding the term eLearning and implementation there of

Problem 1

Management does not understand the process of applying eLearning within their environment.

Problem 2

eLearning culture not embedded in Absa's "way of doing things". What is eLearning according to Absa?

Theme 3: Technical support are not sufficient

Problem 1

Turnaround time for problem solving on "e" could lead to learners getting demotivated specially if course has specified end date. Example - Compliance Certification.

Problem 2

Technical difficulties experienced by learners are demotivating.

Problem 3

Band-width problems (system keeps falling over).

Problem 4

The total business is not currently supported with the eLearning infrastructure.

Problem 5

Active learn should not be the one and only eLearning vehicle. What about e-mail (Absa mail), PDF files etc.?

Problem 6

Part time workers can not participate in learning.

Problem 7

Learner can not access the content from home.

Theme 4: Management does not take ownership of eLearning

Problem 1

Management does not support the eLearning experience.

Problem 2

Management are unable to sec the strategic importance of a learning intervention and does therefore not see eLearning as a priority.

Problem 3

Perhaps importance should be placed on eLearning e.g. The ease of use, availability and the value it can bring to staff. Value add course being the skills & information that they can gain from making use of the eLearning platform.

Problem 4

Lack of Management support.

Problem 5

Learners find it difficult to do eLearning at their workstations as management see work as more important.

Problem 6

Learner does not have time to work with the content on “e”.

Problem 7

Learners are responsible for their own training, when doing eLearning, learners are sometimes disturbed due to business importance matters getting priority above the set eLearning time.

Problem 8

Communication brought down between Management, Team Leaders and staff - need to highlight facts on what is important.

Problem 9

Learning should be in a controlled environment.

Theme 5: Learners do not have time to do eLearning

Problem 1

Learners to not have the time to do eLearning - prefer time out in class rooms.

Problem 2

Only specified times are given for eLearning and it does not support the 24/7 principle. (10 day window)

Problem 3

Learning time is not scheduled “MIS”. What about flexi staff?

Problem 4

Challenges and time frame needed to be completed in a certain time being flexi staff. Difficult (MLC)

Theme 6: Management does not understand the ROI of “eLearning”

Problem 1

Initial cost for eLearning is very high - Management may not approve.

Problem 2

Management does not see the benefit in time gained with learners doing eLearning versus workshop. (that includes travelling time, workshop time etc.)

Theme 7: eLearning platform is not user friendly

Problem 1

Computer literacy of learners are very low.

Problem 2

Frustrations experienced when trying to use the eLearning platform - leads to “negativity” towards future use.

Problem 3

Platform is not user friendly.

Problem 4

The site is not as user friendly - employees don’t know where to search for what.

Appendix P: Problem statements for Focus Group 2

Note: None of the problems statements were edited. They were typed as the focus group reflected it.

Theme 1: IT Infrastructure/system is not always in place to support eLearning.

Problem 1

All learners have access to the Employee Portal.

Problem 2

The “platform” needs to support the learning material.

Problem 3

The navigation through the site is not user friendly.

Problem 4

The site needs to be easy to access, e.g. Storing the Web address on Internet Explorer or on the Absa Website under a staff section.

Problem 5

System problems (Access, Off line, Support).

Theme 2: We have not marketed / communicated the value of eLearning

Problem 1

Management or training need to communicate eLearning with education of how the site can help, together with awareness campaigns.

Problem 2

A marketing strategy needs to be developed to inform employees what eLearning is about.

Problem 3

We have not communicated to SBU/GSF exco management what the various learning mechanisms in use in Absa are, what are their advantages/disadvantages.

Problem 4

We do not explain how eLearning fits into/supports the Absa learning philosophy.

Problem 5

A communication strategy, both long and short term needs to be developed to inform and keep informing the learners.

Theme 3: Learners and Line Management are not ready to use eLearning

Problem 1

Not as effective as being/learning in a “class room” environment.

Problem 2

Some people are scared to use technology to learn.

Problem 3

Blended approach so that each defining medium supports another. (Learners awareness & Learner readiness).

Problem 4

Learners/Line Managers are not ready to use eLearning. They want face to face class room training (It’s what they are used to and most comfortable with). We have the same problem with learning on the Absa channel.

Theme 4: Designed learning material must be addressed - How do we support the learner? How do we make links back to business results?

Problem 1

No artificial intelligence or human interactions whereby a user may pose questions, and the system will respond with the relevant text or point to the location of the information.

Problem 2

Do not benefit from other delegates (contributions/questions).

Problem 3

Limited learning aids e.g. slides, flip charts.

Problem 4

Design of learning is generally learner centred (outcomes based) and not necessarily business focussed.

Problem 5

We do not design, think about the required support for the eLearning learners. How can we make it easier for them. (How to study, how to plan your learning time and how to ask questions.)

Problem 6

We do not support the various learning styles on eLearning.

Theme 5: The desired business results are not established right up front.

Problem 1

Learning in general is not linked back to business performance. People don't understand why they are being training/responsible to implement knowledge.

Problem 2

The desired business results are not established right up front, when the need for the training is discussed/explored. So we at the end, don't know what to measure in terms of improved business performance.

Problem 3

"Line" does not give their support to the learners. "Line" does not give their co-operation.

Theme 6: Line Managers do not support & help learners learn via eLearning.

Problem 1

"Line" does not give their support to the learners. "Line" does not give their co-operation.

Theme 7: Line Managers do not see eLearning as their responsibility.

Problem 1

eLearning is seen as the ? Departments responsibility. Line Managers do not understand their role, responsibilities in using the medium.

Theme 8: Learners do not have the time to do an eLearning self paced intervention. It is difficult for them.

Problem 1

Despite our best efforts, there are still issues related to improving business performance through eLearning. Why is this so?

Problem 2

As Elearning is self paced sometimes learners do not find time to for learning as opposed to a face to face workshop. This poses a problem of the intervention not being effective.

Problem 3

Unavailability of facilitators.

Problem 4

Sometimes there might be a problem with learners not being able to get a response/feedback from facilitators at a time they want.

Theme 9: We have not created the necessary enablement to support the use of eLearning

Problem 1

A change enablement strategy needs to be developed to prepare the employees and their managers.

Problem 2

We have not created the necessary management to support the use of eLearning.

Problem 3

Whenever a new eLearning intervention is available it should only be implemented/used, if the required communication and change enablement has taken place.

Appendix Q: Problem statements Focus Group 3

Note: None of the problems statements were edited. They were typed as the focus group reflected it.

Theme 1: Learning needs are not defined and therefore not measured in terms of business results/performance

Problem 1

The need for learning is not defined/measured in terms of business results/performance.

Problem 2

On the fraud awareness section on the active learn you sometimes miss certain links or information which is important to the learning process. Links are not noticeable.

Problem 3

The eLearning process is an ongoing learning experience not dealing with only one aspect of banking like fraud awareness, therefore I think they are striving to have every sector e.g. Bankfin etc covered in this eLearning process.

Problem 4

Learning online not necessarily by intervention.

Problem 5

The eLearning concept is brilliant but not very many people know about it.

Problem 6

Most of my colleagues only knew of eLearning from seeing participate online. They now know there is an online chat as well as that they can write test online also.

Problem 7

Show me how this can add to my business and then it can work.

Problem 8

There is no real awareness of eLearning amongst our colleagues. I was amongst the fraud awareness group. I adapted and later accessed and enjoyed it, because I had to make constant contact on the discussion forum as well as the course material on the active learn.

Theme 2: Scheduling of learning time did not accommodate for business impact

Problem 1

Time - no little time allowed for learning.

Problem 2

Scheduling of people “Zain” took him away on the busiest times, therefore left a negative impression.

Problem 3

Impression - It takes long. This is an interruption to my business.

Problem 4

Line issue - Took advisor away at busiest time.

Problem 5

No time during work hours to use this, as the learning partakes time and my business cannot afford this time.

Problem 6

Impression of it takes very long to do when Consultant had to ask for time.

Problem 7

Time constraint when users must use it. Time not scheduled through line.

Problem 8

Line issue - Time not properly scheduled and it didn’t take my business into account.

Problem 9

Line issue - Time not properly scheduled. Negative observation make me biased in future.

Problem 10

Left a negative impression and now this will have to be overcome. (Time issue and Line issue).

Problem 11

Priorities - Business needs came before learning needs.

Theme 3: The concept of eLearning being just another way of learning is not understood - paradigm shift

Problem 1

Old paradigms - Dependency on facilitator. Leader to train or nominate learner for course.

Problem 2

eLearning guide/manual should also be introduced to show how the system can benefit as a first time user.

Theme 4: Personal authority take up for learning

Problem 1

Learners are afraid of taking risks, challenging leadership/management when they want to take ownership of own learning.

Problem 2

Dependency on leaders/others is encouraged through policing/coaches etc.

Problem 3

Learners are not emotionally mature enough to take ownership of own learning.

Theme 5: Work environment in terms of peers/management is not conducive to learning

Problem 1

A guide for first time user should also be introduced.

Problem 2

We are PC skilled and does not perceive working on a computer as a challenge.

Problem 3

If it was made known to us about eLearning then we would have been able to work on it. Communication was not involved.

Problem 4

If it can be made more visible and understandable to use, because Consultants do not know how to use it.

Problem 5

The availability of eLearning is not communicated to actual learner level. Learners that should be able to use this, does not even know about it and has barely been informed of its availability and functionality's.

Theme 5: Work environment in terms of peers/management is not conducive to learning

Problem 5

The availability of eLearning is not communicated to actual learner level. Learners that should be able to use this, does not even know about it and has barely been informed of its availability and functionality's.

Theme 6: Orientation aids to the access/navigation of eLearning platform e-ready/enabled

Problem 1

Navigation is not noticeable.

Problem 2

Don't know how to get to the web-site.

Problem 3

We don't know much about eLearning . I have never worked on it.

Problem 4

No facilitation has happened to make users familiar with it and to show first time users how to access it on the system.

Problem 5

Site is not self-explanatory in terms of what you can do / expect. It's not obvious and noticeable what it can do.

Problem 6

One interview said that the things that can be done on eLearning are not obvious and noticeable.

Problem 7

Learners are not e-ready or e-enabled.

Problem 8

A lot of time he information is available but people do not know or understand where to find information.

Problem 9

The accessibility to the eLearning also needs to be communicated, like which links to click on to actually access it. A direct link to the site would be user friendly.

Problem 10

Make it easier to access the active learn section of eLearning.

Theme 7: Management mindshift from traditional training to eLearning

Problem 1

Management don't see learning as value adding - rather it is a waste of time. Old paradigms/school learning does not help in real world.

Theme 8: Past negative experience resulted in a Leadership resistance

Problem 1

Lack of support from leaders.

Problem 2

Lack of involvement and encouragement from management.

Problem 3

Resistance to change to a new way of doing (learning) things.

Problem 4

Management and learners does not know what eLearning is or how it works and don't understand its significance for business.

Theme 9: Design limitations disabled learners and learning

Problem 1

Learning is equal with education, usually school education - Where what is learnt is not immediately useful in real world.

Problem 2

Not communicated - don't know the system. Not facilitated to make it user friendly for first time users. Reference guide to go back to. Lack of training.

Theme 10: Lack of explaining eLearning and its significance to business

Problem 1

Learners don't know what eLearning is and cannot shift their thinking to the fact that eLearning is learning differently .

Problem 2

Effect of learning is not immediately apparent, therefore business does not see the impact it is having on business performance.

Problem 3

The learning environment is not conducive to eLearning - learning cannot occur.

Problem 4

Lack of training as even the learners Team Leaders doesn't know how it works and cannot assist Consultants.

Problem 5

We need facilitators to just show us initially how it works.

Problem 6

People that has to facilitate the learning to Consultants, also doesn't know (Team Leaders)

Problem 7

No one has shown me how it works.

Problem 8

No material to go back to and check up how this works, where and how to do I access it and what it can do for me.

Problem 9

How does this enhance business performance and why will it help me? What outcome can I expect if I use it?

Problem 10

Site is not self-explanatory in terms of what you can do is not obvious and noticeable. What outcome can I expect if I use it?

Problem 11

We are uninformed about eLearning.

Problem 12

Most people interviewed asked me - What is eLearning.

Problem 13

There is a lack of knowledge about eLearning. We are barely aware of it.

Appendix R: Problem statements Group 4

Note: None of the problems statements were edited. They were typed as the focus group reflected it.

Theme 1: Technical limitations/constraints when designing for e-platform

Problem 1

System downtime.

Problem 2

System support doesn't get priority.

Problem 3

Objective not clear. Set goals and mission to know how eLearning fits in the bigger picture.

Problem 4

Not promoted enough create awareness.

Problem 5

Must make eLearning more noticeable.

Problem 6

There is a general lack of PC skills, this results in resistance to try to do a course via eLearning.

Problem 7

Management and Consultants need to know how to access and use eLearning.

Problem 8

Not sufficient training for new recruits and has to be ongoing.

Theme 2: Workshop Interventions more valued than eLearning

Problem 1

Learner do not always see the reason for eLearning in relation to Business Performance.

Problem 2

No clear link between the actual eLearning intervention and individual performance in relation to business goals.

Problem 3

Learner need to take ownership of their own development and careers, and be very aware that it is their own responsibility to develop themselves and assure their employability. (Even though it is a joint venture, the learner is primarily responsible.

Problem 4

Learners need to take responsibility for their own learning and not wait for “learning” to come to them.

Problem 5

Learner need to see that they can actually benefit from this.

Problem 6

Many learners still sees workshops as the traditional way of learning, rather than “self disciplined” self paced interventions.

Problem 7

It’s brand new to many learners, they are motivated, but it feels like they are waiting for someone to guide them (like in workshop training sessions).

Problem 8

If its not workshop based - its not important and not seen as training.

Problem 9

Learners prefer workshop/traditional learning and do not like self-paced learning because they do not see the link to business improvement.

Problem 10

Validation on contents.

Theme 3: Management does not support learning in this medium

Problem 1

Learning and business should be equally weighted. Learning depends on business and business depends on learning.

Problem 2

The course content does not link to the business strategy/business improvements.

Problem 3

Communication about eLearning. Everyone do not know about eLearning. Line Managers to Consultants. No knowledge about IT.

Problem 4

Guidelines on which courses the Consultant should do - job specifications.

Problem 5

Training of Team Leaders on eLearning to enable them to guide and support Consultants.

Problem 6

Consultants, Team Leaders and Managers are not aware of the business objectives.

Problem 7

Learners are very excited about this delivery method at the beginning. Line Management do not share/support their commitment. (Learners come in on their off days to take part in the eLearning fraud Awareness session).

Problem 8

Learners are excited but learners do not provide time/opportunities to do "Active learning". Managers will schedule and allow workshops but not allow "surfing" and learning online.

Problem 9

Consultants, Team Leaders and Managers are not aware of the measurements of business performance.

Problem 10

Line Management need to make the business objectives clear to Team Leaders and Consultants for all to understand/support/commit to the route forward.

Theme 4: Difficulty in scheduling time to learn

Problem 1

Availability - Scheduling needs to be informed of consultants doing a course on eLearning in order to book time for persons to go on to eLearning platform.

Problem 2

Consultants will have to sign off, which will impact our service levels.

Problem 3

Business doesn't see the importance of Consultants being able to access eLearning in their "own time", and not in a "class room" environment.

Problem 4

Management and learners don't make time, e.g. put in diary to do eLearning.

Problem 5

Lack of time in Call Centre environment.

Problem 6

In the Contact Centre environment eLearning needs to be a scheduled activity. Thus making it the same as a class room training. Experience that is electronic.

Problem 7

Many learners feel they have no time during working hours to partake in learning. (If not scheduled with a facilitator, they don't participate).

Problem 8

Do the learner have enough time to make use of eLearning? (In our environment they need to be scheduled for this).

Problem 9

It's more important to take calls in the Contact Centre than spend time on eLearning. (eLearning is not being given a priority in terms of daily tasks, scheduled in the Contact Centre.

Problem 10

Time for online facilitators.

Problem 11

E-Channel Contact Centre need to make more "separate" facilities available for all to participate in eLearning activities. (Consultants are seen as not busy when doing activities at their own workstations, and not taking calls).

Theme 5: Technology problems inhibit participation

Problem 1

Most people don't read what is on the monitor of their PC, so instruction is often not carried out, and the PC or programme are blamed because it doesn't work.

Problem 2

Firewall/bandwidth limit the optimal design of eLearning courses. Paper behind glass instead of interactive learning.

Problem 3

eLearning needs to be as exciting as Internet access perse. What you see and experience during "surfing" needs to be experienced during online learing - graphics, sound, animation, plug in.

Problem 4

Different ways of learning.

Problem 5

Computer literacy.

Problem 6

Lack of equipment available to all learners both at the office and at home.

Problem 7

Many learners lose interest whenever problems are experienced with technology.

Problem 8

Registering for a course not easy for inexperienced user. Learners/users could loose interest in tool and may not want to use it anymore.

Theme 6: eLearning is not sufficiently marketed

Problem 1

No knowledge about eLearning.

Problem 2

Certain learner feel that this method of learning is uninteresting.

Problem 3

eLearning must be marketed as a learning tool not a training intervention. Managers need to support the learning vs training) concept.

Problem 4

Active learn/eLearning needs to be splashed on the screen and forcefully marketed - make learners want to learn/excitement needs to be created.

Problem 5

We need to know who would be responsible for which products/course, in order to answer questions that we might have. Also how long before a question would be answered.

Problem 6

eLearning is seen as just another fun training initiative. The link between learning more and being able to apply the knowledge gained on your own, is not made.

Theme 7: Logistical support not in place timeously

Problem 1

Logistical problems cause learners to dislike the ePlatform because the system falls over or the system is not accessible.

Problem 2

eLearning, if not supported and pushed by Management has little significance to the learner (ie. Environment not conducive).

Problem 3

Currently logistical problems - access to the system (Passwords, etc).

Problem 4

Learners who are not computer literate are “scared” to attempt eLearning.

Theme 8: What is in it for me - all stakeholders

Problem 1

How will eLearning improve my performance - from a learner perspective.

Appendix S: Detailed observation report of the behaviour of the focus group participants

The observation report includes the data as provided by the observers. The three classifications of behaviour, i.e. group dynamics, mental models and synergy, was combined in the larger research report to reflect on the behaviour of the focus group participants and how it affected the outcome of the research results.

What are the leverage point/s to improve business performance through eLearning?

OBSERVATION REPORT

By Lee-Anne Deale and Sophia Nawrattel

23 July 2003

INTRODUCTION

Purpose of observation:

The researcher, Isabeau Korpel, requested Lee-Anne Deale and Sophia Nawrattel to observe the group dynamics and behaviour "in the here and now" over a period of three one-day sessions.

The observers were unaware of the participants' roles and job titles prior to the session.

Based on the methodology selected for the purpose of the study, the observers were also tasked to observe the facilitator and researcher to ensure that they in no way influenced the content and therefore the outcome of the study.

Approach:

A meeting was arranged prior to the session with the researcher and the observers. The purpose and methodology of the study was shared and the role of the observers was clarified.

The observers made use of the following sources of information to guide the preparation for the session:

Morgan, D. L. (1989). Focus Groups as Qualitative Research. SAGE Publications, United States of America

Saunders, M.N.K., Lewis, P. and Thornhill, A. (19XX). Research Methods for Business Students. Prentice Hall: Financial Times

Case Studies
http://www2.chass.ncsu.edu/garson/pa765/cases.htm
Viewed 2003/07/03

Focus Group Research
http://www2.chass.ncsu.edu/garson/pa765/cases.htm
Viewed 2003/07/03

Participant Observation
http://www2.chass.ncsu.edu/garson/pa765/cases.htm
Viewed 2003/07/03

The observers prepared guidelines for observation for each of the sessions, as well as debriefing summary notes for the purpose of debriefing after each session.

Following the first session on day one, the observers provided the researcher with input to guide the selection of the participants for the second and third session. The input was based on each participant's contribution to the group and the roles they took up within the group. In addition, it was recommended that the participants be regrouped for session two and three.

About the observers:

Lee-Anne Deale
Industrial Psychologist
Masters: Industrial Psychology
Organizational Development Consultant and experienced qualitative researcher in the area of customer research

Sophia Nawrattel
Masters: Business Administration (MBA)
Fellow: SA Institute of Bankers (FIBSA)
Banking and General Management experience within the financial industry for sixteen years

Structure of report:

The report follows a logical structure as executed in the three sessions. It begins with observation on the activities for research objective one, followed by research objective two and research objective three. In addition, a short conclusion is provided at the end of the report. The detailed breakdown can be found in the table of contents below.

TABLE OF CONTENTS

INTRODUCTION – DAY ONE

Research Objective 1: To identify the driver problem that prevents eLearning from improving business performance.

SRQ1: What are the problems related to improving business performance through eLearning?

SRQ2: How can the problems be grouped together as themes?

SRQ3: How can each of the themes influence each other?

SRQ4: What is the driver problem?

INTRODUCTION – DAY TWO

Research Objective 2: To design the systems dynamic model (SDM) that represents the driver problem.

SRQ1: What is the system in focus (SIF)?

SRQ2 & SRQ3

SRQ2: Who are the stakeholders in the SIF?
SRQ3: How can the influence of the stakeholders be described in terms of power and satisfaction?

SRQ4: What are the measures of performance (MOP)?

SRQ5: What are the co-producers for each of the MOP's?

INTRODUCTION – DAY THREE

Research Objective 2 (Continuation): To design the systems dynamic model (SDM) that represents the driver problem.

SRQ6 & SRQ7

SRQ6: How does each of the co-producers influence .each other?

SRQ7: How do the co-producers within each of the sub-system influence each other?

S.1. Part A: SRQ6 – day two afternoon

S.2. Part B: SRQ6 & SRQ7 – day three

CONCLUSION

INTRODUCTION – DAY ONE

28 participants arrived at the session one. The venue was the Video Conference facility in the Absa Towers East building, 2nd floor. Although the venue was crowded, the participants were comfortable and had sufficient space to work with the task at hand. The equipment, namely microphones and videos, was unobtrusive and the observers are of the opinion that the equipment did not influence the group behaviour.

Research Objective 1:

To identify the driver problem that prevents eLearning from improving business performance.

SRQ1:

What are the problems related to improving business performance through eLearning?

Group Dynamics:

As one would expect, individuals responded to the instruction differently. Some immediately recorded their inputs, others pondered the question. One individual made use of foreign material as a reference for the exercise.

Mental Models:

As the exercise involved individual brainstorming using post it notes, no observation of the mental models is recorded.

Synergy:

The observers sensed that the group conducted the pre-work. High energy levels in the group were apparent and individuals were highly responsive to the instructions.

SRQ2:

How can the problems be grouped together as themes?

Group Dynamics:

There was a high level of sharing amongst group members. The outcome is reflective of collective input and not skewed to the contribution of a few dominant individuals.

Mental Models:

As one would expect in group dynamics, the natural leaders emerged and took up their roles. The group authorized the leadership role and accepted the allocation of tasks during the process.

Synergy:

There appears to have been a lack of “drawing in others” amongst the groups. The appropriate skill of the groups’ “facilitators” was inadequate, therefore resulting in non-optimisation of diverse members of group; namely language, culture, levels of authority and personality preferences.

SRQ3:

How can each of the themes influence each other?

Group Dynamics:

The larger group was split up into four smaller groups.

Group One

6 members

This group is seen as functional with all members contributing at least to a limited extent.

Group Two

5 members

A dominant role player led this group. Although the process allowed for space creation, two of the members only contributed to a certain extent. The group dynamics were natural where role players supported the leader in her role.

Group Three

7 members

This group was perceived as dysfunctional at this point due to poor self-organisation and clear emergence of two power players that dominated the group.

Group Four

Largest group consisting of 9 members

The group was characterised by experts in the subject matter from both Learning and Development and from Business. The group was characterized by effective debate.

Mental Models:

Group Two

It appeared that the presence of the observer may have had an influence on the facilitator of the group as attempts were made to draw in members of the group when the presence of the observer was felt.

Group Three

Although the results of this group may be skewed toward the opinions of the two power players, the impact would not influence the outcome due to the nature of the process at this point.

Synergy:

Where individual participation levels were low, the duration of this exercise resulted in energy levels dropping amongst these individuals.

SRQ4:

What is the driver problem?

Group Dynamics:

Groups one and two joined to form Group A.

Group A

This group functioned optimally in this exercise due to broader group participation. The emergent leaders from the previous exercise retained their role in this larger group.

Groups three and four joined to form Group B.

Group B

The facilitators from group four retained their leadership roles and the facilitators from group three participated and contributed within the realms of the larger group.

Mental Models:

This exercise created the opportunity for the groups to refocus and participation levels increased especially amongst individual participants that only contributed to a certain extent in the previous exercise.

The inclusion of the two power players in the larger group B resulted in the potential "skew" factor being reduced as they formed part of a refocused group.

Synergy:

Overall, energy levels increased within the two larger groups.

SRQ5:

What are the causes and effects of the driver problem? (Fishbone diagram)

Group Dynamics:

The same two groups, namely group A and group B, conducted this exercise independently of each other.

Group A demonstrated their passion by taking the problem statement to a deeper level than required during this exercise. The group was functioning optimally at this point with high levels of participation.

Mental Models:

Some of the representatives from Learning and Development adopted a defensive role during this exercise and influenced the system with a number of what the observers perceived to be “excuses”. However, it did not appear that the groups authorized this behaviour.

The level of energy in the groups was still high at this point, possibly indicating the passion that was being released through this process.

Synergy:

The process was followed as per the instructions and is perceived to be representing the collective view.

INTRODUCTION – DAY TWO

The researcher introduced session two by requesting all the participants to share thoughts, feelings and feedback from the previous session. A number of participants shared the personal learning that had taken place on day one due to the process that was followed. In addition, some participants also shared their view of how the process enabled all group members to participate by choice.

The researcher conducted a verification process the day after session one. The researcher shared the results of the verification process with the group. The researcher is congratulated on her facilitation as she ensured shared meaning throughout the group during the introduction session. Although the group was influenced by the results of the verification process, they were not influenced by the researcher's personal view.

Research Objective 2:

To design the systems dynamic model (SDM) that represents the driver problem.

SRQ1:

What is the system in focus (SIF)?

Group Dynamics:

Group A

8 members

The group authorised the same natural leaders from the first session to take up their roles. The group was functional with only two group members contributing to a limited extent. Although the group was interrupted by two late arrivals, they accommodated them and allowed them the space to reach an understanding of the here and now.

Group B

7 members

The natural leader from session one was authorised by the group to take up the leadership role despite her late arrival. The results of this exercise may well be skewed as a result of the strong influence of the leader, lack of participation amongst the group and lack of encouragement to contribute.

Group C

6 members

This group functioned optimally during this session, with no single member adopting the leadership role. The variety of interaction that unfolded in this group resulted in true dialogue and therefore a collective view.

Mental Models:

The participants appeared to be more comfortable and responsive to instructions in comparison to the first session. Their levels of responsiveness appeared to be higher, perhaps as a result of their exposure to the process in session one.

Synergy:

The change in the group structure resulted in renewed levels of energy and participation. Certain members from the first session, who did not actively participate, took up their roles and actively participated in session two.

SRQ2 & 3

In the execution of this exercise, namely the brainstorming, identification and reduction of stakeholders, the activities for SRQ2 and SRQ3 were done simultaneously. Hence the observations made below cover both.

SRQ2:

Who are the stakeholders in the SIF?

SRQ3:

How can the influence of the stakeholders be described in terms of power and satisfaction?

Group Dynamics:

Group A

8 members

In this exercise, the two late arrivals influenced the group by seeking the ideas and opinions of the other group members, and hence challenged the natural leaders role. Therefore participation in the group was high.

Group B

7 members

The leadership role in this exercise shifted from one dominant leader to a shared role between two members. This resulted in a higher level of participation within the group as the group authorised the new leadership role player. The outcome of this exercise was more reflective of the collective view.

Group C

6 members

The group can be described in this exercise as highly synergistic.

Mental Models:

Despite the consensus in the group during the introduction session that accountability resides with both business and L&D, the allocation of accountability that was required in this exercise was incongruent. The participants tended towards identifying parties other than line management (themselves) to take accountability for eLearning.

Synergy:

The variety of the interaction was observed to be well balanced and natural, although four to five participants chose to only passively participate. The high energy levels during this exercise are reflective of the combination of dealing with SRQ2 and SRQ3 simultaneously.

SRQ4:

What are the measures of performance (MOP)?

Group Dynamics:

Group A

8 members

During this exercise, the leadership role shifted and the natural leader took up a more passive role. The levels of participation in the group were observed to increase as a result of this new leadership role player. The level of encouragement and involvement of all members was increased, resulting in increased dialogue and a higher functioning group.

Group B

7 members

The shared leadership role shifted to a new leader during this exercise, which resulted in new members participating in the process.

Group C

6 members

The synergy in this group was maintained, a clear indication of the levels of passion for this subject matter that reside in this group.

Mental Models:

The participants appear to have different levels of understanding of human behaviour. Certain assumptions made by the participants reflect a lack of understanding of the systemic impact of the human response to change and the reality of working with resistance to change. For example in one group, the single motivator of human behaviour was identified to be money incentives. This observation is believed to demonstrate the diversity of the participants in the group in terms of levels of work and emotional maturity.

Synergy:

Overall, the levels of energy and participation increased during this exercise through changes in the leadership role players and their associated leadership styles.

SRQ5:

What are the co-producers for each of the MOP's?

Group Dynamics:

Group A

8 members

Following lunch, the leader of the group was absent for a period. This negatively impacted on the group dynamics and levels of energy, resulting in the previous natural leader taking up her role to rescue to the situation.

Group B

7 members

The new leader in the group maintained his influence over the group from the previous exercise. He initiated the move of the group to create a collective workspace, which sustained the levels of participation to achieve the objectives of the exercise.

Group C

6 members

During this exercise, the members of this group asked many questions and started to spiral in their thought processes. However, they achieved the objectives of the exercise and ensured collective input.

Mental Models:

There appears to be a fundamental gap between the methodologies used by L&D specialists in People Management versus the business understanding of human behaviour. Therefore business perceives the “value of money” as the driver of human behaviour and reduces the importance of the individual in the story.

Synergy:

Overall the group appeared to have reduced levels of energy after lunch. The researcher and the facilitator took cognisance of this and decided to close the session following this exercise.

INTRODUCTION – DAY THREE

The facilitator commenced with the SRQ6 exercise during the afternoon of day two. The group was not tasked to complete the exercise as the process was scheduled to continue on day three.

Research Objective 2 (Continuation):

To design the systems dynamic model (SDM) that represents the driver problem.

SRQ6 & SRQ7

The outcomes of the process followed for SRQ6 and SRQ7 were integrated and will therefore be reported below as such.

SRQ6:

How does each of the co-producers influence each other?

SRQ7:

How does the co-producers within each of the sub-systems influence each other?

Group Dynamics:

Part A: SRQ6 – day two afternoon

Group A

8 members

It appeared that the group battled with the task and were not able to settle down and function effectively. The natural leader was visibly frustrated with the situation and demonstrated defensive behaviour.

However, due to the manner in which some of the members of the group challenged and questioned the process, the group was still able to progress.

Group B

7 members

Both leaders in this group appeared to have difficulty with the task and displayed similar defensive behaviour as observed for group A. The facilitator identified the need to assist them with the process and thereby enabled the group to proceed with the task. At one point, the group revisited their stakeholder analysis and was then able to progress, which illustrates the rigorousness of the process.

Group C

6 members

As a result of the deep level of thought processing that was taking place in this group in the previous session, the group continued to function optimally in this exercise. However, the group engaged in high levels of constructive challenging, questioning and idea generation.

Group Dynamics:

Part B: SRQ6 & SRQ7 – day three

The group members remained in the same groupings as the previous day, the exception occurring for group C as one member did not return on day three.

Group A

8 members

Due to the levels of frustration that occurred in this group the previous afternoon, the natural leader took it upon her to reorganize some of the work generated by the group. When the rest of the group arrived, it appeared that they had a sense of relief that someone had managed to sort out the task for them. However, both the natural leader and the new leader that had emerged on day two, spent considerable time ensuring that each of the group members had shared meaning and were in agreement with the new outcome of the task.

The facilitator provided the group with their next instruction. Again, due to the complexity of the task, the defensive behaviour patterns reemerged. One member of the group adopted the harmoniser role and facilitated the session so as to ensure the group would meet its objectives. As a result, the team managed to complete the task with a moment of celebration.

Group B

7 members

When the group arrived, they appeared to have a renewed willingness to participate and displayed high levels of energy. Although it was apparent that they were battling with the task, it appeared that they were excited to work with the challenge. The participation level reached its peak in this session.

The group progressed well but not at the same pace as group A and C. As a result, they had increased pressure to complete the task before the end of the session. During the tea break, the natural leader took it upon her to reorganise some of the work generated by the group. When the group returned, the leader shared the new outcome of the task with them. The energy levels in the group were negatively influenced and the group appeared to loose interest in the exercise.

After the group received the final instruction for the session, they demonstrated fatigue and frustration. The group was not able to progress at all, and asked for help from the facilitator. As a result of increased involvement of the facilitator to assist them with the process, the group did manage to complete the exercise. However, it is questionable whether they would have managed to do this without the intervention of the facilitator.

Group C

5 members

Although the group was short of one of its members, the synergy within the group continued from the previous day. The level of thought processing from the previous day negatively influenced the levels of energy in the group. However, their passion for the subject matter was still evident and the levels of dialogue and participation were still impressive.

By day two, this group had formed into a healthy functioning team and was therefore able to manage the complexity of the three-day session.

Mental Models:

It was apparent that in both group A and B, the members were spiraling in the "storming" phase of the groups' development, and hence were not functioning as effectively as earlier in the process, on day two.

Group B appears to have experienced greater difficulty with the tasks over the three days. This may be as a result of the variation in the participants' levels of work. This does not appear to be the case for group A and C.

Synergy:

Given the complexity of this exercise, the interpersonal dynamics within group A and B presented a challenge, whereas group C applied their minds collectively to the task as a high performance self-organising team.

Due to the difficulty experienced by the groups, the facilitator continually visited each group to check their process. At no point did she influence the content but rather the process by asking the right questions. Due to the level of complexity of the task and the groups' requests for guidance in terms of process, the researcher adopted a co-facilitation role at times. The observers are of the opinion that she did not influence the content at any time. Her approach was to ask each group to "tell their stories" to assist them to check their own approach.

CONCLUSION

The observers qualify the outcome of the three-day session as being a true and valid representation of the collective view of all participants. The methodology that was applied ensured open discussion on the topic and each participant was able to contribute to the shared working space.

The researcher did not influence the methodological process used in this study. The facilitator was an objective and neutral role player who executed the required steps of the selected methodology without influencing content.

The profiles of participants at this session represent both a 'Learning and Development' and a business view. This inherently resulted in participants from a

variety of different levels of work being present. The participants eloquently captured the value of this observation at the end of the session. Both L&D and business representatives reflected on the past three days and stated that their personal learning was to listen to one another and to really *hear* what each other's needs are.

The opportunity for the levels of true dialogue and shared understanding that took place between business and specialist functions in this process, is highly valuable in the business context and should not be underestimated. The process may be complete, but this component of the study has initiated an exciting journey ahead for Absa with regards to eLearning.

Problem 5

Due to the needs of our client s that change regularly, eLearning needs to be updated. Not just as a learning platform e.g.. Product etc. but also maybe as an information platform.

Problem 6

Does not accommodate my learning style.

Theme 8: Overall communication between all stakeholders is insufficient

Problem 1

Communication from management about eLearning and what it can be used for.

Problem 2

Communication on how it can be used.

Problem 3

Maybe it should also be communicated in the sense where new employees, when in training are told about it, shown how it works & explained the benefits thereof.