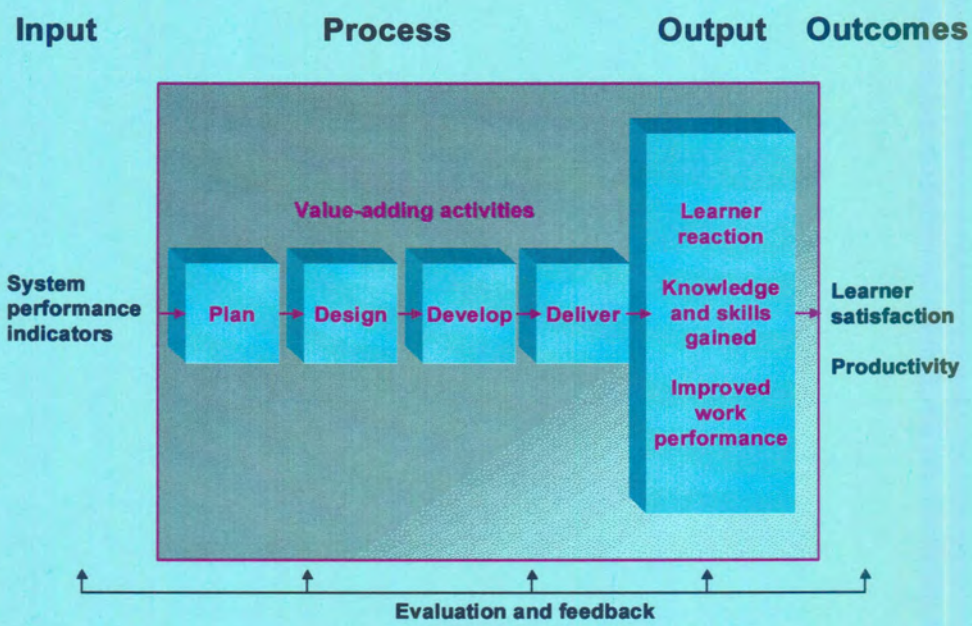
Chapter 5
Findings



An experiential learning process for the advancement of previously disadvantaged employees in an industrial context – W.J. Cilliers

5 IMPLEMENTATION AND FINDINGS

Implementation is the "process of turning plans into actions. Without careful forethought about what actions to take, when to take them and who should take them, no strategy will ever be successful" (Rothwell & Kazanas, 1994: 201).

5.1 INTRODUCTION

The development of the experiential learning process was ultimately affected by a wider social climate of self-help (Fukuyama, 1992), career uncertainties (Schein, 1994), post-modernist culture and ethics (Connor, 1989; Harvey, 1990; Best & Kellner, 1991; Bauman, 1993) and increasing competitiveness (Peters, 1992), as well as the emergence of the knowledge economy (Toffler, 1990; Drucker, 1992).

These created dynamics that made the construction of the experiential learning process a particularly arduous task for those concerned. The development of the learning process made an excellent comprehensive research project in terms of handling ambiguities, complexity, conflict, culture change and teamwork.

The findings of the research conducted over the period 1995 to 1999 are presented as follows:

- Data collection methods and instruments used to obtain the research results
- Findings of various training and development action and processes implemented during the different action research cycles

5.2 DATA COLLECTION METHODS AND INSTRUMENTS

5.2.1 Data collection methods and instruments used in this research

Data collection methods and instruments are used to gather the information needed for a research project. The methods and instruments used in this research project are listed in Table 5.1 and are separated into qualitative and quantitative measures. As Leedy (1980: 71) argues, "Research seeks, through data, to discover what is true absolutely. In a sense, research is a constant pursuit after the complete meaning of the data. Data do not constitute absolute truth, but merely a behavioural manifestation of the truth".

	Methods	*Instruments*
Qualitative measures	Survey	Questionnaires
	Journal	Researcher's journal
	Interviews	Interview schedules
	Focus group	Formal and informal discussions
	Electronic mail	Messages generated by participants
Quantitative measures	HR database	Computer-generated results
	Practical training programmes and plans	Training programmes and guidelines

Table 5.1 – Data collection methods and instruments

As indicated in Table 5.1, the qualitative measures utilised surveys, journals, interviews and focus groups as the main sources of information, while the quantitative measures include mainly data obtained from the Eskom HR database and practical training programmes and plans used for the duration of this research project.

5.2.2 Qualitative measures

Qualitative data collection methods include surveys, journals, interviews, focus group discussions and electronic mail.

5.2.2.1 Surveys

The surveys used in this research project mainly took the form of interviews that provided descriptive information relating to the nature of existing conditions at national level and at organisational level in Eskom. The format for the surveys used in this research project involved one or more of the following techniques (Cohen & Manion, 1998):

- Structured interviews
- Semi-structured interviews
- Self-completion interviews

5.2.2.2 Research journal

Throughout the period the experiential learning process was under development, and in accordance with the principles of the action research being used, the researcher charted his own experiences and learning. He used a research journal to record ideas and the development of the process. In addition, data from the ETD practitioners and learners concerning their experiences in relation to the process and implementation were collected. Special emphasis was given to the ethics of education as an integral part of the development.

Many articles, products and guidelines were collected, developed and kept in the course of the development of the learning process. Discussions on the process were held with fellow ETD practitioners, drawing on their experience as ETD practitioners, and this information was used to influence the processes. Ground theory approaches (Glaser & Straus, 1967) were used to

generate theory that might help fellow ETD practitioners in the area of ethics in training and development (conceptual framework) and education.

Products, guidelines and theories developed during the research and circulated among stakeholders provided opportunities for critical feedback and, where appropriate, validation of the claims made by the researcher. Most of the information generated is available on the Eskom Transmission HRD Intranet Web-site and provision was made for the process, documents and guidelines to be downloaded for personal work-related use and improvement.

5.2.2.3 Focus group discussions and group interviews

Pre-arranged focus group discussions and interviews were utilised for the purpose of meaningful input with the minimum of disruption to the development process. Dynamic participation from these groups provided effective contributions to the project. However, disruptions did occasionally prevent the flow in the group interviews. The main input came from participants with an adequate foundation of experience and theoretical knowledge (Cohen & Manion, 1998).

5.2.2.4 Electronic mail

Electronic mail (GroupWise) was used as the main medium of written communication during the research project. Messages generated were printed and filed for analysis and referencing purposes.

5.2.3 Quantitative measures

Sources of quantitative data include the Eskom Human Resources database and practical training programmes and plans.

5.2.3.1 Eskom HR database

The Eskom Human Resources information systems, containing employee records, performance evaluations, qualifications, grading and compensation information, were used for the analysis of the Eskom Transmission Group profile. Special authorisation was granted for viewing sensitive and confidential information relating to employees. In addition, the Eskom HR database was used for the analysis of the B band employees and organisational profiles.

5.2.3.2 Practical training programmes and plans

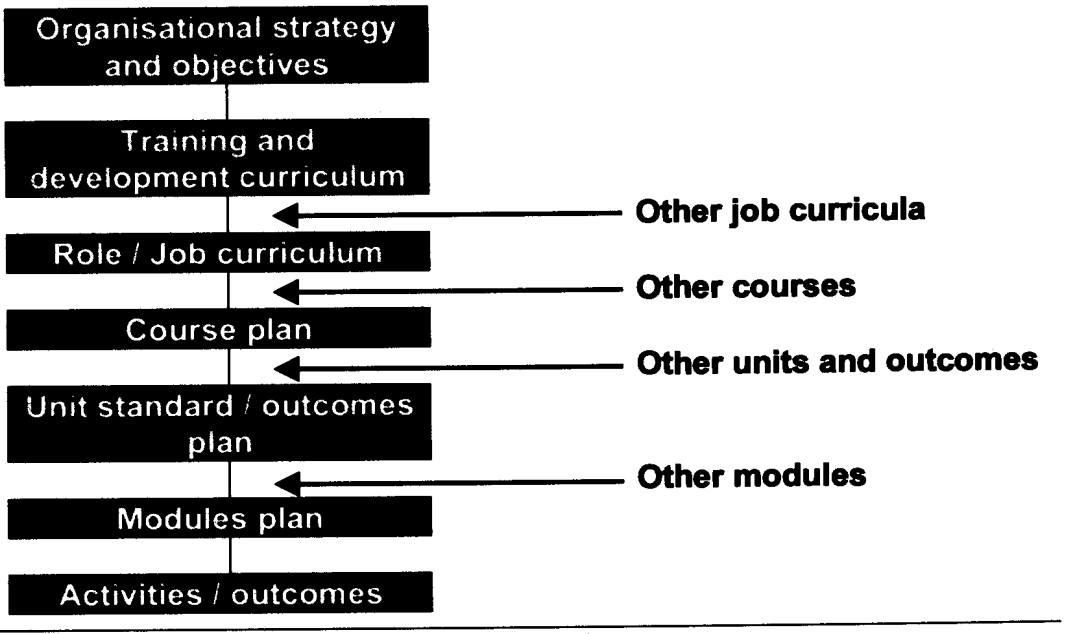


Figure 5.1 – Practical learning process flow chart

The practical training programmes and plans developed for this research utilised a generic approach to achieve a formal structure and consistency and included the following overarching elements:

- Participation in a learning environment
- Programme of unit standards and outcomes plan
- Credits obtainable

- Recognition for competency
- Achievement of organisational goals and objectives

The comprehensive practical training plan and chronological flow used for this research is illustrated in Figure 5.1. As the figure shows, the training plan and programme was based on a chronological flow of events where activities in the learning environment and workplace form part of modules in a unit standard plan. The unit standard plan supports the course and job curriculum and the organisational objectives and goals.

5.2.4 Triangulation

Triangulation was used to validate the research approach utilised (Mouton & Marais, 1996). Cohen & Manion (1998: 233) state that triangulation may be defined as "the use of two or more methods of data collection in the study of some aspect of human behaviour. It is a technique of research to which many subscribe in principle, but which only a minority use in practice".

5.2.5 Action research cycles

The aim of the researcher and various teams during this project was to design and deliver a process-orientated training and development system for a process-driven organisation in line with national requirements and leading to nationally recognised qualifications. In so doing, various problems relating to aspects of the training and development model were encountered in each of the action research cycles. Each of the research cycles utilised the elements of –

- planning;
- action;
- observation; and

- evaluation

to substantiate and validate the research methods and approach used in the research project between 1995 and 1999 (Figure 3.1).

5.3 ACTION RESEARCH FINDINGS

The action research findings are derived from the main research question on learning interventions:

How can national and organisational alignment, learner development, practitioner development, and learning processes and systems be integrated into an experiential learning process for the design of learning interventions?

The main research question is supported by the following subsidiary research questions (Table 5.2):

Focus area	Subsidiary research questions
National and organisational alignment *Learner development* *Practitioner development* *Learning processes and systems*	• How *closely* is the learning environment aligned with the national and organisational policy requirements? • How *efficient* is the delivery of training interventions? • How does practitioner development influence the *quality* of *learning*? • How *can* the learning interventions assist in the advancement of employees?

Table 5.2 – Focus areas and subsidiary research questions

The findings from the research on training and development conducted during the period 1995 to 1999 were obtained and presented as shown in the data collection plan in Table 5.3.

5.3.1 Data collection plan

Focus area	Research interventions	Research cycle 1	2	3	4	5
National and organisational alignment	• Provisional evaluation of the current status of training and development in the Eskom Transmission Group	●				
	• Eskom Transmission Group HRD strategic planning session	●				
	• Training needs analysis		●			
	• HRD workshop		●			
	• Eskom Transmission Group HRD strategic development and restructuring			●		
	• Eskom Transmission Group HRD strategy			●	●	
	• ABET environment in South Africa			●	●	
Learner development	• Competence development in Engineering Resources		●			
	• Eskom Transmission Group A and B band development		●	●	●	
	• Technician development		●		●	
	• Engineer development		●			
	• ABET environment in South Africa			●	●	
	• A and B band profile					●
Practitioner development	• HRD analysis toolbox				●	
	• HRD management toolbox				●	
	• HRD guideline 1998				●	
	• Student administrator development				●	
	• Mentorship development and implementation				●	
	• Individual and group learning facilitator development				●	
	• Practitioner development				●	●
Learning processes and systems	• External ABET survey			●	●	
	• Eskom ABET audit			●	●	
	• ABET service-provider evaluation			●	●	
	• Experiential process development				●	●
	• Transmission School of Technology			●	●	
	• Induction programme development			●		
	• Eskom Transmission Group HRD Web-site			●	●	
	• Eskom Transmission Group profile					●
Learning interventions	• A and B band project report				●	●
	• Practitioner development			●	●	●
	• Implementation of the Skills Development Act					●

Table 5.3 – Data collection plan for the period 1995 to 1999

5.4 NATIONAL AND ORGANISATIONAL ALIGNMENT

5.4.1 Subsidiary research question

The following subsidiary research question was used for the research on national and organisational alignment:

Subsidiary research question
How *closely* is the learning environment aligned with the national and organisational policy requirements?

5.4.2Data gathering instruments

The following data gathering methods and instruments were used to gather information relating to national and organisational alignment (Table 5.4):

		Instruments used						
	National and organisational alignment How *closely* is the learning environment aligned with the national and organisational policy requirements?	Questionnaires	Researcher's journal	Interview schedules	Formal and informal discussions	Messages generated by participants	Computer-generated results	Training programmes and guidelines
Methods	Surveys	●						
	Journals		●					
	Interviews			●				
	Focus groups				●			
	Electronic mail							
	HR database							
	Practical training programmes							

Table 5.4 – Methods and instruments used in relation to national and organisational alignment

Only the surveys, journals, interviews and focus group discussions were used to gather information in relation to the national and organisational alignment,

as can be seen from Table 5.4. Various actions and interventions were implemented to obtain information on national and organisational alignment. To obtain the national alignment findings, interviews were conducted with a variety of industries and bodies, including the following:

- Metal
- Electronics
- Minerals
- Manufacturing
- Training and development
- SAQA

It was found that different alignment initiatives have been pursued by these organisations and valuable progress has been made in developing generic competency models for technical disciplines.

- Noteworthy is the excellent work and contributions made towards the development of the electrical profiles.
- Although the organisations were involved with various other SETAs (South Africa, 1998b; South Africa, 1995a) and different classified fields of learning, there was an absence of a generic or common framework on how to approach and integrate the different initiatives with one another.
- No notable interaction between the mining groups, steel manufacturing organisations and ferrous or non-ferrous metal companies was detected, even though a certain level of work should be generic to any discipline.
- The interpretation of the levy payable under the *Skills Development Act* (South Africa, 1998b) and the rebate that can be reclaimed for accredited training was interpreted differently by each of the organisations.

The following findings were a direct result of the visits to the different industries. The implemented interventions in Eskom provided the following findings:

- Eskom established a task team to implement the *Skills Development Act* and the *Green Paper on Further Education and Training* (South Africa, 1998a; South Africa, 1998b) within the organisation.
- Eskom Corporate HRD was responsible for the implementation of the Act in the organisation.
- Each of the Groups within Eskom provided representatives who were responsible for the implementation and delivery of negotiated outputs.
- Various sub-teams have been established to address the development of the following items from the task teams:

    - Competency profiles
    - Learning delivery
    - Accreditation standards
    - Quality assurance mechanisms
    - Skills planning
    - Capacity-building

5.4.3 Action research process

Table 5.5 indicates the different research interventions undertaken during the different action research cycles. Some of the interventions continued in the subsequent cycles.

Focus area	Research interventions	Research cycle 1 2 3 4 5
National and organisational alignment	• Provisional evaluation of the current status of training and development in the Eskom Transmission Group • Eskom Transmission Group HRD strategic planning session • Training needs analysis • HRD workshop • Eskom Transmission Group HRD strategic development and restructuring • Eskom Transmission Group HRD strategy • ABET environment in South Africa	● ● ● ● ● ● ● ● ● ● ● ● ● ●

Table 5.5 – Research interventions in relation to national and organisational alignment

The following section of the research project reports on the findings of individual research interventions implemented as listed in Table5.5.

5.4.3.1 Provisional evaluation of the current status of training and development in the Eskom Transmission Group

A preliminary training needs analysis was conducted at the end on 1995 to identify specific training needs within the Eskom Transmission Group, with a view to conducting a comprehensive training needs analysis in 1996. Among the subjects investigated in this provisional evaluation were the following:

- Transmission HRD strategic direction
- Competence development at various levels
- Trainee, learner, student and bursar administration (employee well-being)
- Development of the ETD practitioners
- External influences, for example the implementation of the NQF, Eskom Corporate policies and directives, ABET performance and the competence development drive in Eskom

The provisional analysis showed that the following steps were required to assist in the alignment of training with national organisational requirements:

- an in-depth training needs analysis, comprehensive HRD strategic planning session;
- a workshop with the key stakeholders;
- the establishment of various working groups to address A and B band competence development, and
- the assessment and development of learning opportunities in the organisation.

In addition, the provisional evaluation of current training and development in Transmission revealed that the HRD department was faced with various problems. Determining the purpose of the HRD function in the Transmission Group formed part of the provisional evaluation of the training and development interventions. The issues identified were clustered into generic areas of interest and included:

- Transmission HRD direction and related issues;
- competence development and employee well-being;
- general training issues and practitioner development; and
- external influences.

The table below gives an indication of the generic clustering of the types of problems encountered in the different focus areas by the training department (Cilliers, 1998a) (Table 5.6):

Area	Lack of
Transmission HRD direction	• HRD policies, strategy, vision, mission and business plan
HRD-related issues	• Training and development under one framework (fragmented); • integrated training system (holistic approach); • integrated accelerated development, apprentice co-ordination; and • integrated training plans and a comprehensive training needs analysis.
Competence development	• Assessment tool development, competency assessment and RPL • Job profiling, competency-based modules
Employee well-being	• Engineer training and development • Pupil technician development • Retraining of employees • Mentorship • Accreditation standards and implementation
General training issues	• HRD communications system • Transmission training centre • Menu / catalogue / guideline for available Transmission training • Accredited training modules • Transmission ABET audit • A and B band development and assessment • Transmission safety and legislative training • Development and implementation of a learning process approach
Transmission ETD practitioners	• Transmission roles and accountabilities for ETD practitioners • Project manager / leader • Training of mentors, coaches and instructors
External influences	• Implementation of the NQF • Implementation of job profiles

Table 5.6 – Provisional evaluation findings

As found and indicated above the HRD direction strategy could fail, as Pastin (1986: 50) argues, "because managers are not sufficiently concerned with the present. For a map to be useful, it must have an 'X' marking the present location. The best map in the world will not keep you from getting lost if you don't know the location from which you are starting. In the same way strategic (business) planning must start with an assessment of where the organisation is and whether it is aligned with its present goals". As a direct result for the provisional evaluation findings a strategic HRD planning session was

conducted to address the findings and to prepare for an in-depth training needs analysis with the involvement of the key stakeholders.

5.4.3.2 HRD strategic planning session (Appendix I)

An HRD strategic planning session with a small focus group took place as an outcome of the provisional evaluation. The objective was to analyse and plan an approach and scheme in terms of how to address the training needs analysis and other critical training and development priorities identified and highlighted by the provisional training needs analysis.

The findings of the HRD strategic planning session resulted in a scheme of how to address the needs for:

- the establishment of a training cycle; and
- the strategic planning session with the key stakeholders.

The findings and actions as a result of the HRD strategic session are indicated in the table below (Table 5.7):

Findings	Actions
Need for the establishment of a training cycle	• Identified Eskom Transmission Group process training needs; • analysis of the training needs; • planned HRD training strategy; • planned HRD training business plan and strategy; • designed training process model and system; and • implementation of an approved training system.
Need for a strategic HRD session with key stakeholders	• Determined HRD mission, vision and strategy; • identified the kind of core businesses (product lines) in which HRD wishes to be involved; • specified training and development objectives emerged from the strategic business plan and strategy of the Eskom Transmission Group; • allocation of financial and manpower resources; • specify strategic guidelines required for policies and direction in the management and business planning processes; • formulation of a training and development mission and vision; and • alignment of the above mission into the Eskom Transmission Group's vision and its five-year and ten-year strategic business plan and values.

Table 5.7 – Results of the HRD strategic planning session

A detailed action plan (see Appendix I) with performance indicators and target dates was drawn up and implemented to involve the key stakeholders and training needs analysis as part of the next phase in the process of national and organisational alignment.

5.4.3.3 Training needs analysis (Appendix I)

The findings uncovered during the HRD strategic session included the involvement of management, employees and organised labour. The Eskom Transmission training needs analysis targeted the key stakeholders and organised labour. The key stakeholders comprised senior managers in the organisation and key targeted people from the different regions in the Eskom Transmission Group. Organised labour comprised the recognised unions active in Eskom:

- Eskom Employers Association
- South Africa Workers Union
- Mine Workers Union
- NUM and NUMSA

Interviews were conducted with representatives of each of the trade unions and realistic expectations were incorporated into a draft HRD business plan as identified in the HRD strategic session (Table 5.7) and training needs analysis. Specific training needs were identified and prioritised by means of interviews, focus group discussions and questionnaires. The results of the questionnaires provided a basic framework for the planned HRD strategic session with a few selected key stakeholders that followed to focus the HRD interventions.

The comprehensive training needs analysis entailed a broad systematic examination of the training and development conditions in the Eskom Transmission Group conducted for the purpose of identifying general differences between what employees should know or do and what they actually know or do. The findings of the training needs analysis provided information and inputs in relation to the following focus areas (Table 5.8):

Focus area	*Findings*
Clients/customers	• what is the involvement and perception of the key stakeholders and organised labour in the HRD interventions
Training needs	• identified training needs from the key stakeholders • prioritised training needs and action plans to address the training needs
Process analysis and data collection	• analysis and incorporation of the questionnaire interviews • utilisation of existing data and training material • identification of immediate deliverables • identified HRD projects that need immediate attention
Strategic issues	• incorporation of HRD strategic session inputs into the draft HRD business plan • finalisation of the HRD session

Table 5.8 – Findings of the HRD training needs analysis

The results of the HRD training needs analysis resolved in a draft HRD business plan and strategy that was used for the strategic HRD session with senior management and key stakeholders.

5.4.3.4 HRD workshop (Appendix I)

The HRD workshop was based on the findings of the:

- provisional evaluation of the training and development status;
- HRD strategic planning session; and
- training needs analysis.

The participants of the HRD planning session were supplied with a draft HRD business plan and strategy to initiate and structure the session. Focus group discussions took place in break-a-way groups to modify and cultivate the HRD business plan and strategy. The HRD workshop resulted in:

- a preview and review of the results of the training needs analysis and identified training interventions;
- expected training cycle; and
- expectations from line management, employees and the trade unions.

The following issues form part of the results of the HRD strategic session and were used to finalise the HRD business plan and strategy and to keep the direction of the future development process on track (Table 5.9):

Focus area	Findings
Organisational goals and objectives	• what the training and development emphasis should be • where the emphasis of the development should be placed • the provision of normative standards for both direction and expected impact (performance training) which would highlight any deviations from objectives and performance problems
Manpower planning	• the manpower planning involvement to determine the gaps that needed to be filled as a result of retirement, turnover, age and voluntary separation packages • the provision of important inputs into the demographics database regarding possible training needs and the placement of qualified employees in respective demographic areas
Skills inventory	• the provision of a number of employees in each skills group • knowledge and skills levels and training time per job and • information provided to estimate the magnitude of specific training needs and helps with cost-benefit analyses for training projects
Organisational climate	• the quality of work life and employee well-being as indicators on feature organisation behaviour • the focus on identified problem areas • aspects investigated include labour strikes, grievances, turnover, absenteeism and observation of employee behaviour
Analysis of efficiencies	• cost accounting concepts that represent the ratio between actual performance and desired or standard performance
Changes in systems and sub-systems	• new process approaches and changed equipment that presented training problems

Table 5.9 – Strategic HRD session findings

An approach and framework for the HRD business plan and strategy were established as the next phase based on the findings of the previous interventions.

5.4.3.5 Eskom Transmission Group HRD strategic development and restructuring (Appendix I)

After the HRD workshop, the restructuring process was implemented. Actions identified during the previous interventions were implemented to develop with the Transmission HRD business plan and strategy. Focus groups and a SWOT analysis (strengths, weaknesses, opportunities and threats) approach

was used to define the identified training needs from the previous sessions that existed in the organisation. The focus was to finalise the:

- HRD vision, mission and HRD customer definition;
- major development areas as HRD product lines; and
- strategic HRD actions.

The HRD strategic development and restructuring resulted in the finalisation of the HRD business plan and strategy with the required HRD vision, mission and strategy. In addition, product lines were identified and strategic actions were determined as part of the restructuring. Important findings that arose from the HRD strategic action session included the following (Table 5.10):

Actions identified based on the findings
• the financial accountability for training and development
• to define the roles and responsibilities of ETD practitioners and customers to eliminate duplication
• the requirements that are needed for business education development
• clear communication and involvement of staff, customers and stakeholders in HRD direction and product lines
• determine the required KPIs (key performance indicators) for the HRD different product lines
• development of a HRD guideline and curricula in respect of available courses and modules for employees
• design all development on the basis of competency- and outcomes-based education and development in the organisation including the service providers
• established a profile for ETD practitioners
• evaluation of the existing ETD practitioners' profiles
• capture and register ongoing HRD projects in the Eskom Transmission Group
• the need to investigate the possibility of using an HRD information management system that integrates the development needs with the required HRD environment and provide an accurate account of financial expenditure on training and development interventions per region and for the Eskom Transmission Group

Table 5.10 – HRD strategic development and restructuring findings

The HRD strategic development and restructuring findings prompted the investigation of the ABET environment in South Africa as the next phase.

5.4.3.6 ABET environment in South Africa (Appendix F)

Findings in the previous sessions prompted the investigation of the ABET environment in Eskom and in South Africa. This section describes the investigation results of the findings that could be used as a benchmark to evaluate the ABET environment in Eskom.

The ABET environment in South Africa was investigated to establish the relevance of current initiatives being pursued by the Eskom Transmission Group and Eskom as a whole. The investigation included examining current and new legislation and determining whether these influence the current initiatives. It was found that the objectives of ABET training in South Africa is to:

- raise the basic educational level in the organisation;
- increase the quality and quantity of relevant and appropriate learning available to adults who were unable to access adequate education in the past;
- to create a culture of lifelong learning;
- redress past training and development inequalities; and
- improve access to education and training.

These objectives are in line with the Government's commitment to lifelong learning, to redressing past inequalities and improving access to education and training (South Africa, 1998b; South Africa, 1995a; South Africa, 1995b). It was found that in the effort to achieve this objective to improve the educational foundation of people in South Africa, two key performance indicators have been set:

- a significant increase in learner enrolments and involvement in programmes and the use of learning services; and
- a substantial increase in learner achievement.

The challenge to provide an integrated programme for education and training to enable learners to participate and make use of recognised qualifications is more crucial than ever before. The following initiatives were undertaken as a result of the investigation of the ABET environment in South Africa to ascertain the current ABET interventions envisaged and in use by various organisations in South Africa and by Eskom:

- Eskom ABET audit
- External ABET survey
- ABET service-provider evaluation

The findings obtained during the national and organisational alignment interventions influenced the development of the other research focus areas (learner development, practitioner development and learning processes and systems).

The findings concerning the second research area, learner development, are discussed in the next section (5.5) of this research report.

5.4.4 National and organisational alignment findings

The national and organisational alignment findings provided the basis for the development and refinement of Eskom to enable it to align itself with the relevant legislation. It was founded that this alignment included the formulation of the advancement by the organisation towards fulfilling the different legal development requirements and purposeful implementation of accredited training and development for its employees. The following explicit findings were made during the investigation and included the organisational approach and the internal organisational alignment.

5.4.4.1 Organisational approach

The findings made on the organisational approach included taking cognisance of the external forces determining the direction an organisation should take to align itself with the minimum legal requirements. The following forces were identified:

- SAQA influence on the organisation
- NQF influence on the organisation
- The roles of the NSA
- The roles of the SETA

In addition, it was found that the cross-sectional alignment between various government departments caused confusion, and the relationships between these departments were eventually settled with the establishment of working groups to work out the interaction between them. The findings indicated that progress in the 12 fields of learning was characterised by the three types of co-operation between the 28 identified SETAs (Table 5.11):

Type of SETA cooperation	*Number of SETAs involved*
Active and agreed	7
Active but not agreed	11
Development work required	10
Total:	28

Table 5.11 – SETA cooperation and involvement

5.4.4.2 Internal organisational alignment

It was found that the internal organisational alignment was characterised by three elements during the development:

- Actions and participation at a strategic legislative level
- The organisation's interest in the classification of fields of learning

- Internal organisational alignment to bring the above-mentioned elements together

This resulted in the implementation of an alignment integration process, in which the organisation focused on four major alignment areas (Figure 4.9):

- Organisational context
- National context
- Learning processes and systems
- Human resources initiatives

The results indicated that each of these major alignment areas was supported by various other sub-processes and systems such as:

- Outcomes-based training and development map (Figure 4.11);
- the organisation's quality assurance interventions to ensure compliance with national and internal organisational requirements; and
- most significantly, the development of learnerships and social upliftment programmes for the employees in the organisation.

5.5 LEARNER DEVELOPMENT

5.5.1 Subsidiary research question

The following subsidiary research question was used for the research on learner development:

Subsidiary research question
How *efficient* is the delivery of training interventions?

5.5.2 Data gathering instruments

The following data gathering methods and instruments were used to gather information related to learner development (Table 5.12):

	Learner development How *efficient* is the delivery of training interventions?	Instruments used: Questionnaires	Researchers' journal	Interview schedules	Formal and informal discussions	Messages generated by participants	Computer-generated results	Training programmes and guidelines
Methods	Surveys	●						
	Journals							
	Interviews			●				
	Focus groups				●			
	Electronic mail							
	HR database						●	
	Practical training programmes							●

Table 5.12 – Methods and instruments used in relation to learner development

Only interviews, discussions, the HR database and practical training programmes were used in relation to learner development, as is evident from Table 5.12. Various training programmes and guidelines were designed,

developed and implemented. The learner development methods and instruments were developed and utilised to cultivate employees in line with the organisation's, HRD and work group needs and objectives. As Nadler (1979: 88) says, "Employee development is concerned with preparing employees so that they can move with the organisation as it develops, changes and grows". It thus makes the individual employees and learners change argents in the organisation.

5.5.3 Action research process

Table 5.13 indicates the different research interventions initiated in relation to learner development during the various action research cycles. Employee and learner development is an extension of externally orientated instruction. It helpes the employees in the organisation to adapt to changes taking place externally. Learner development prepares employees for these external changes and transformation.

Focus area	*Research interventions*	*Research cycle* 1	2	3	4	5
Learner development	• Competence development in Engineering Resources		●			
	• A and B band profile					●
	• Eskom Transmission Group A and B band development		●	●	●	
	• Technician development		●		●	
	• Engineer development		●			

Table 5.13 – Research interventions in relation to learner development

The findings obtained during the national and organisational alignment process (5.5.3) were matched to the needs of the learners. The needs assessment process (Gardner, 1963; Hague, 1974; Pedler & Boydell, 1980) included:

- Identification of various work groups, disciplines and skills clusters;

- clarification of the purpose, activities and responsibilities of the groups, disciplines and skills clusters;
- planning of changes in the purpose, activities and responsibilities of the groups, disciplines and skills clusters;
- determination of how many and what kind of employees were available; and
- planning of how many and what kind of employees were needed.

It was found that the long-term, formal and informal mentoring programs that were designed, developed and implemented ensured that the learners and employees on the development programmes were supervised by an experienced and often higher-placed individuals who established special relationships with others as is shown by Rothwell & Kazanas, (1994a).

The following interventions were designed, developed and implemented to support the learner development.

5.5.3.1 Competence development for Engineering Resources (Appendix J)

A pilot project was implemented in one business unit. The Engineering Resources Business Unit in the Eskom Transmission Group consists mainly of highly technically skilled employees and comprises more than 35% of the employees in Transmission. The A and B band Engineering Resources career path and curriculum was developed to accommodate career path development for employees from A band to C upper level to ensure continuity in the development and learning process (Cilliers, 1996a).

It was found that the use of the supervisors and specialists in the various fields of departments involved in the development of the departmental curricula streamlined the process, increased the acceptability and credibility of the programmes. Organised labour was involved in the process to ensure

transparency and the participation of all stakeholders when required. It took more than a year to develop and finalise the nine departmental curricula and have them accepted by management and the trade unions. The department's involved in this exercise were (Cilliers, 1996a):

- Measurement and control test and support
- Cable services
- High voltage laboratories
- Installation services
- Protection supervisory services and panel shop
- DC supplies
- CAD drawing office
- Technical services
- Subscriber field services

The development of the competencies is unique within Eskom and in the Eskom Transmission Group. The scarcity of these skills in the organisation meant it was difficult to validate the skills and competencies against other competencies and skill clusters during the development process. In support of the work group, uniformity and supervision, supervisors were provided with an additional list of competency definitions to ensure a uniform understanding of specific skills and requirements (Cilliers, 1996a).

The identified A band employees underwent screening to establish their ABET literacy and numeracy levels. The employees were enrolled on the appropriate ABET courses provided locally by the Eskom Corporate ABET Business Unit. Placement and career path development was implemented. Various courses were modified to incorporate a practical approach to accommodate the illiterate employees in the Eskom Transmission Group.

The modified courses were used to motivate the employees to enrol for ABET. The courses were made available to employees at various levels with no entry requirements. Some employees had left the programme owning to a lack of motivation, commitment or future applicability of skills and competencies. It was found that the modified courses were useful to motivate them to rejoin the programme. As a tangible reward, each of the employees who participated and completed the courses received a standard equipped toolbox.

Practical training programmes were developed and presented to A band employees. It was found that these programmes were so successful and well received by the stakeholders that various identified B band employees were put through the same courses to improve their skills and competencies. This included comprehensive career pathing, personal development plans and training plans. The plans developed for the A and B band employees consisted of outcomes, modules, unit standards and course plans and were so designed that the completion of one level lead to the next level. This resulted in the following macro career path (Figure 5.2).

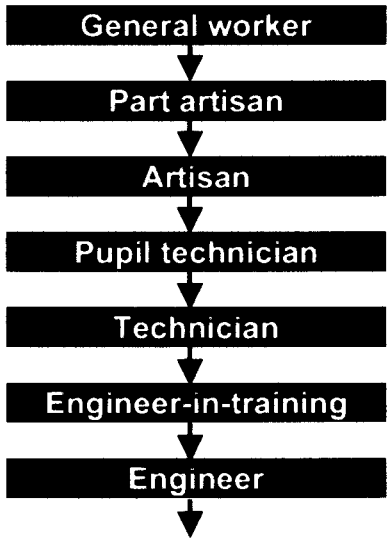


Figure 5.2 – Progressive career path planning

As indicated in Figure 5.2 it was found that employees were not limited after completing a skills, competency or training plan. It was agreed with

management that employees should be allowed to develop multiple skills as long as this was required to enhance their current competency profiles.

The success of the programme was based on the feedback received from the line managers and supervisors as well as follow-up and exit interviews with the employees. The subsequent progress reports and assessments after completion of the assignments also supported the findings.

5.5.3.2 Eskom Transmission Group's A and B band development (Appendix K)

The career path that was implemented for the nine engineering resources departments in the pilot project proved so successful that it was decided to implement the same system for the entire A and B band training in the Transmission Group.

The development of A and B band level employees in the Transmission Group took place on the basis of perceived potential. The concept of 'from floor sweeper to qualified engineer' was applied. The career path development was structured in such a way that an employee could progress from being a floor sweeper to an artisan (electrician), technician and eventually even an engineer.

It was found that the implementation of the learnership programme, skills development and competency development menu resulted in the establishment and development of generic, activity and impact training later called performance training, and is described in Table 5.14:

Training focus	Findings
Generic training	• The generic training provided the basic development to enhance skills and bring all the employees to the same level of skill and competence. The ABET and technical skills were integrated to motivate and ensure participation by the employees. The basic skills courses was redesigned to accommodate and motivate the illiterate employees at this level
Activity training	• The activity training provided the employees with technical and theoretical exposure and took them from a bridging course through to fourth-year apprenticeship level. A mentor and coach were appointed for each employee.
Performance training	• Performance training enabled employees to work in their own working environment and to make an impact on the organisation. These employees started to participate as coaches to less experienced employees.

Table 5.14 – A and B band development focus

A more detailed description of the training and development undergone by the employees is given below. The development for the A and B band employees was designed progressively. The training was divided into six phases to make the management process (Cilliers, 1998f) (Table 5.15):

Phase	Activities during the phase
Phase one	• Generic skills development. This phase develops the employees to a certain level of basic competencies. There are no prerequisites for entry to this level. One of the objectives is to allow any person to attend this level, especially persons who have stopped attending the ABET classes. However, these employees are not allowed to continue the training if they do not complete ABET to at least level three. Further training requires the candidates to be fluent in English as a conversational language. This first phase is used as a motivational course to convince the students to complete their literacy training.
Phase two	• Phase two provides for specialised training in the specific areas in which the learners are working and prepares them for the next level of training. In this phase the focus is on the development of specific skills in the individuals. A pre-N1 course is part of the preparation for the next level. New initiatives for the future include a 3-4 week training session at the Transmission School of Technology for all Transmission A and B band employees.

Phase three	• First-year electrical apprentice curriculum, N1 technical college training and specific on-the-job training in the students' respective working environments.
Phase four	• Second-year electrical apprentice curriculum, N2 technical college training and specific on-the-job training in the students' respective working environments.
Phase five	• Third-year electrical apprentice curriculum, with on- the-job training. Students have the opportunity to attend a further technical college session, this being determined by the student's potential.
Phase six	• Trade test preparation and trade test. The students have the opportunity to do an Article 28 trade test to qualify as an electrician.

Table 5.15 – A and B band career path development

The main advantage of the A and B band development programme was that it made provision for various exit points for employees who do not have the potential or cannot master the required skills to continue, yet they still receive recognition for what they have achieved. After phases three, four and five, employees received recognition as a 'trade assistant level one, two or three' respectively, which is in line with the national trend for giving recognition for skills acquired and applied in the work environment and the National Qualifications Framework (South Africa, 1998a). The development phases are not related to any time frames and depend entirely on the potential and progress of the employee. It was also found that the acceptance and participation of the trade unions in this event and the support given during the development of the curricula motivated the employees to stay on the programme. The implementation of the A and B band development was significant in:

- the development of the generic, activity phases;
- the development of the career path development in six phases or stages; and
- management and ownership of the practical development plans by the employees themselves

The A and B band employees were provided with practical personal development plans they managed themselves as part of the empowerment and accountability of employees to take ownership of their own development (South Africa, 1998b). It was found that they commit themselves to the development and were very eager to proceed with the next phase after completion of the current phase.

The A and B band employees were interviewed by an evaluation panel, assessed, rated and promoted where they were found to be competent. Employees who were not yet competent were provided with additional training and development. In 1995 there were 164 A band employees and all but two employees went through the development programme and were promoted between1995 and1999.

The focus is now on the development of the B band employees. Various training and development programmes and interventions are scheduled at Eskom College and in the Transmission School of Technology together with practical on the job training. It was found that the keen interest and success on the A and B band development prompted the development of the technician career path as discussed in the next section. In addition it was evident that the development and promotion of the A banders to B band created expectations from the other employees to receive the same development opportunities.

5.5.3.3 Engineering technician development

The technician development was a direct result of the findings made in the national and organisational alignment and of success of the A and B band development. The development of competencies for the A and B band employees led to promotions to the next grade which initiated the development of the engineering technician career path. The technician development (Cilliers, 1996a) forms part of the career development for an

engineering technician. The same 'from floor sweeper to engineer' approach was applied to the engineering technician career paths. The development of the engineering technicians is a high priority in the Transmission Group because of the high technological requirements with the maintenance, installation and repairs of the primary and secondary plant. The findings made during the training needs analysis and interviews with key stakeholders in the organisation and external bodies steered the engineering technician development in the following direction (Cilliers, 1996a):

- Career path development
- Curriculum development
- Experiential training development

The reorganisation of pupil (learner) technicians' development was undertaken during the action research cycles between 1996 and 1998. This included the redesign of the training in Transmission for the pupil (learner) technicians. The technician development focused on the following (Cilliers, 1996b; Cilliers, 1996c; Cilliers, 1996d; Cilliers 1996e):

A. Technician career path
B. Primary and secondary plant curricula
C. Experiential training record
D. Guideline for the experiential training record

A. Technician career path (Appendix L)

The technician career path (Cilliers, 1996b) implied a holistic approach to the development and retraining of the existing technicians in the Transmission Group. The research concentrated on a generic approach and interventions aimed at the personal development of employees. Research also revealed that various employees in technical positions did not have adequate qualifications for their positions. Each technician was treated as an individual. They decided on the extent of participation themselves and were supported by

management in their decisions. The technician development identified and addressed the following (Cilliers; 1996b):

- Definition and understanding of what a technician is
- Identification of the required roles
- Expected outputs from the technician
- Required competencies
- Behavioural profile in a technical environment
- Engineering technician practical training programme

It was found that engineering technicians needed support and information on:

- Technikon theoretical training curricula
- Technikon experiential training curricula
- Assistance with professional registration
- Development matrix

The engineering technician development paved the way for a generic development. It was also found to provide the employee with the necessary primary and secondary plant curricula for ownership and development purposes as discussed in the next section.

B. Primary and secondary plant curricula (Appendix M)

The primary and secondary plant curricula (Cilliers, 1996c) addressed the development of the technicians in the Transmission Group. However, only 20% of this development focused on the specific Transmission skills required in the organisation, while the other 80% focused on the development of the technician in line with the minimum requirements of the technikons and the professional registration body, ECSA (Engineering Council of South Africa). An additional element in the development was the inclusion of a further two phases (phase 4 and phase 5) that could be undertaken by the learners.

Figure 5.3 (Cilliers, 1996c) details the content of the engineering technician development. The employee can enter at any point determined by personal development, discussions and assessment.

As is evident from Figure 5.3, the development in phases 1 to 3 complies with the minimum requirements of the technikons. Phase 4 and phase 5 are for further development and are specialised, focusing on specific equipment utilised in the organisation. In addition, phases 4 and 5 also introduce the technician to leadership and managerial skills. The engineering technician can register as a professional technician after a minimum period of two years of acceptable, work-related experience.

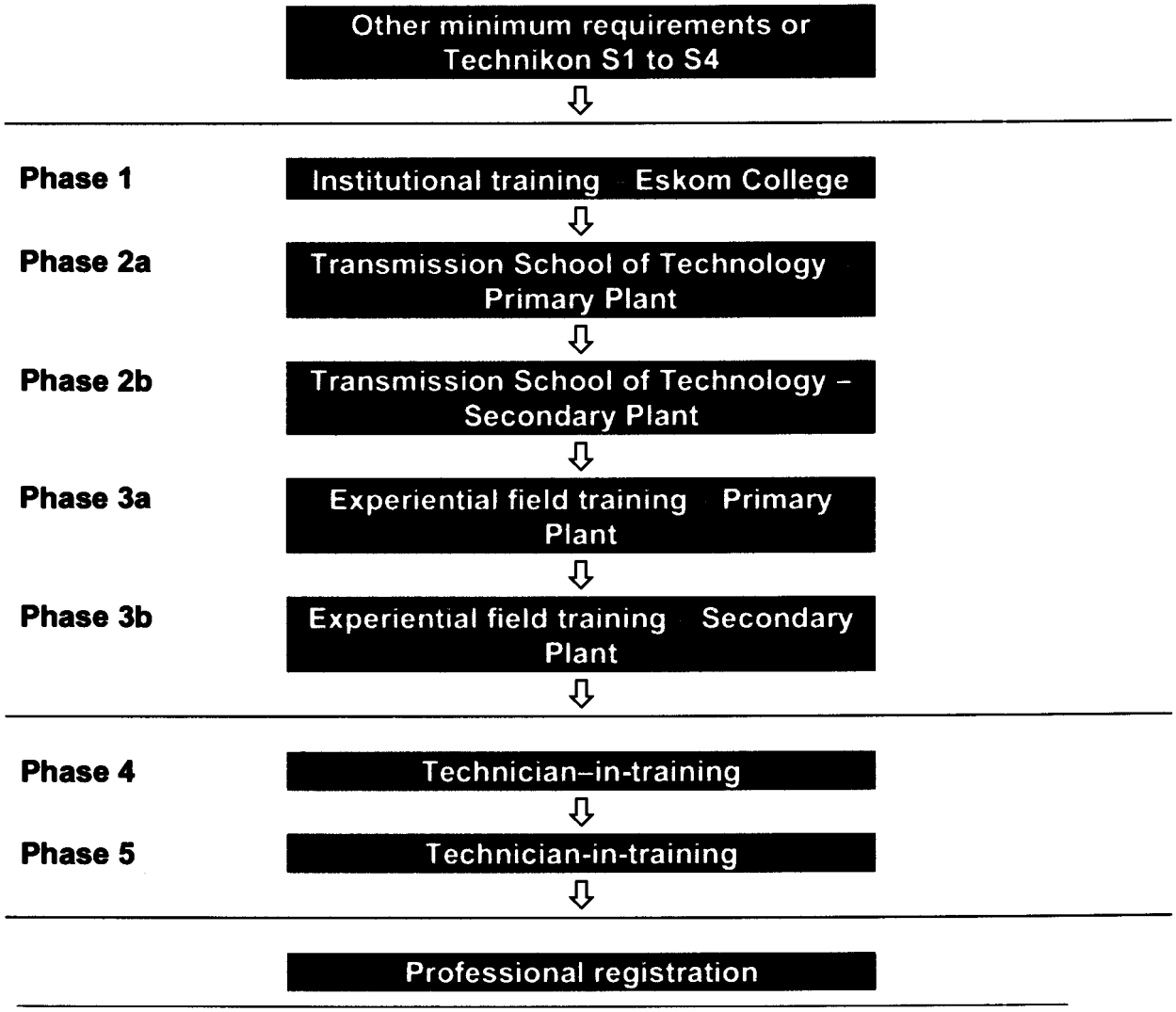


Figure 5.3 – Engineering technician career path

It was found necessary to further develop the engineering technician career path and to make provision for a bridging course at the entry point to accommodate the A and B band employee who had progressed to this level. In addition it was also found that the development of phase 4 and 5 was necessary to accommodate the needs of the progressing technician on a higher level. This improvement on the programme also provided the facility for retraining of the existing staff who needed the development.

C. Guideline for the experiential training record (Appendix O)

The guideline for the experiential training record (Cilliers, 1996e) provided the pupil (learner) technician with fundamental information on what was expected and how to comply with the requirements of the organisation during his/her experiential training. This document includes the following (Cilliers, 1996e):

- General information on development and career path
- Duties and responsibilities of the student, employer and technikon
- Technical report format
- Structure of the course and syllabus
- Evaluation criteria

The guideline for the experiential training record was to support the completion and record keeping of the experiential training record as discussed below.

D. Experiential training record (Appendix N)

Assessment and exit interviews in the initial stages uncovered the need for an explicit guideline to help the employee and the practitioner to keep record of courses completed and the progress of the employee. The experiential training record (Cilliers, 1996d) was introduced to provide the employee with a framework for the necessary record-keeping, assessment and progress

reports during the development phase. This document includes the following (Cilliers, 1996d):

- Summary sheet of evaluated topics
- Evaluation in the final exit interview
- Evaluation of an integrated technical and theoretical approach
- Reports on the primary plant and secondary plant
- Reports on the experiential field training in primary and secondary plant

A review of the practicality and use of the experiential record resulted in the revision of the first implemented experiential training record. The modification of the experiential training record addressed an outcomes-based educational approach whereby the employee reported on a whole project and not on individual tasks. Joint and individual assignments formed part of the reports (Spady, 1994).

The engineering technician development programme was introduced in Transmission in 1998 and since then more than 167 pupil technicians have been trained in the Transmission School of Technology as part of Eskom's RDP commitments (Eskom, 1997c). Additional disciplines were accommodated in the school on the basis of the success encountered and feedback received form the students and employees. Other Eskom Groups and external organisations are using the school on a more frequent basis for specific technician development. It was also found that the implementation of the four guidelines provided the employee with the security of a career path associated with the required identified training and development interventions. However, it was also found that the guidelines and career path could not be used in isolation with the same expected end results. The progression of the employee from A band to an engineer level was still an underlying principle used during the development to ensure smooth transition from one level to another.

5.5.3.4 Engineer development (Appendix P)

It was found necessary to develop the engineers' career path to link in with the engineering technician career path. The *Guideline for competence development for engineers-in-training and engineers* (Cilliers, 1996f) provides a basic framework for the development of engineers in the Eskom Transmission Group. This framework and guideline provide the employee with a high-level development plan based on the various needs identified and addresses the following (Cilliers, 1996f):

- Definition of an engineer;
- required outputs expected from an engineer;
- required competencies;
- expected behavioural profile; and
- practical development plan

The *Guideline for competence development for engineers-in-training* (Cilliers, 1996f) provided the employees with various options for self-development. It was found that the following development issues were evident when the employees attended a personal development planning session:

- the demarcation of the boundaries for the training and development period;
- addressed expectations and some administrative issues (monthly report, etc.) relating to the development period; and
- provision of available training resource guides for the development and planning of his/her training programme.

A keen interest was displayed when employees were accountable for their own development. The employees participated in the development,

scheduling and negotiations to make the training program work. The cooperation of the employee resulted in the following:

- An approved training programme compiled by his / her mentor and the responsible HRD support practitioner provided a three-dimensional perspective on the development;
- detailed macro project plan for the two-year period;
- micro activity schedule for monthly / weekly activities;
- negotiated interventions with identified sources, venues and people; and
- release from his/her current line function for training periods with the mentor at pre-arranged times.

The intention was achieved to empower the employee and make him / her responsible for the training and development actions. The development for the engineer-in-training took place in two phases (Table 5.16):

Development phase	*Findings*
First phase	• controlled training and development, with exposure to various forms of leadership and management development • training received was mostly development and presented at vendors and venues away from the workplace • the responsible HRD practitioner was prominent in this phase • ownership and control to manage the training situation by the employee was well received
Second phase	• the second phase focused on the marketing and on–the-job training of the employee, with possible placement at the end of the development phases • the emphasis is on local development and practical, hands-on experience • the employee was in control of his/her own competence development • the employee was responsible for finding and securing a permanent position based on his/her performance and contribution to the line groups and managers

Table 5.16 – Engineer development phases

The next section reports on the development of the ETD practitioners who need to implement the organisational alignment and maintain the learner development.

5.5.4 Learner development findings

The findings of the various initiatives implemented in the national and organisational alignment process reinforced the need to develop and implement specific learner development interventions to address the learners' training and development needs. The findings obtained during the learner development phase resulted that four overarching development focus areas were identified, namely:

- Learnership and skills programmes
- Skill levels
- Competence development menu
- Learnership development

The findings as discussed in section 5.5.4 were based on the above mentioned focus areas.

5.5.4.1 Learnership and skills programmes

It was found that the learnership and skills programmes should pave the way for a generic approach towards the development of the employee. The draft programmes developed covered the following areas in which individual development was expected:

- Institutional education
- Legal training
- Personal growth
- Leadership development

- Group and business unit-specific training and development

The learnership and skills development programmes formed the basis for the development of the skills levels to address the four development focus areas as mentioned above.

5.5.4.2 Skill levels

The skill levels as designed and developed in Chapter 4 provided the integration of the learnership and skills programmes on a national and organisational level with the necessary recognition of qualifications awarded at the fundamental and core levels. In addition, it proved that the electives provided the organisation with the relevant development margin to accommodate different disciplines, cultures and work requirements. However, it was also found that the skills levels needed to be addressed in a more structured competency development framework, structure or menu driven application.

5.5.4.3 Competence development menu

It was found that the competence development menu was significant in that it accommodated the preparation of employees in directions that are not directly work-related, with the following important spin-offs:

- Social development and the underlying principle that the immediate family and community can benefit from the personal development of the employee;
- fulfilment of the personalised development needs of the employee;
- identification and development of potential leaders and managers by introducing them to basic leadership skills; and
- continuing to attend to the needs of the various Groups and business units in the organisation.

The competence development menu provided the employee with a range of development courses to choose from as part of the skills development support process. In addition, it was found that the actual hard copy of a personal development plan provided the employee with a structured visible plan that served them with a sense of security, participation and ownership.

5.5.4.4 Learnership development

It was found that the employees could not participate in any of the learnership and skills programmes, skills development initiatives or development menus in isolation or as separate units. To create that culture of lifelong learning and participation they needed to approach the learner development initiative in totality.

It became clear, in addition, that consecutive development progress from the lowest to the highest level of skill without certification to the employee involved in the development was demotivational. It was found once the promulgation of creditworthy recognition was addressed, it served as a major motivational factor. Notable in this development are the different entry and exit levels on the learnership programmes, which are determined by the potential of the employee. This provided unlimited development opportunities for the employee and was very well received by the employees, trade unions and management.

The next section reports the findings obtained during the various implemented interventions in the learner development process.

5.6 PRACTITIONER DEVELOPMENT

5.6.1 Subsidiary research question

The following subsidiary research question was used for the research on practitioner development:

Subsidiary research question
How does practitioner development influence the *quality* of *learning*?

5.6.2 Data gathering instruments

The following data gathering methods and instruments were used to gather information relating to practitioner development (Table 5.17):

	Practitioner development How does practitioner development influence the *quality of learning*?	Instruments used: Questionnaires	Researcher's journal	Interview schedules	Formal and informal discussions	Messages generated by participants	Computer-generated results	Training programmes and guidelines
Methods	Surveys							
	Journals							
	Interviews			●				
	Focus groups				●			
	Electronic mail					●		
	HR database						●	
	Practical training programmes							●

Table 5.17 – Methods and instruments used in relation to practitioner development

Interviews, discussions, messages, computer-generated results and training programmes were used in the research on practitioner development. According to Nadler (1984: 119), practitioner "education is learning to prepare

the individual for a different but identified job". It may mean preparation for a promotion or transfer or for work for only a day or so. It may mean preparation for one specific work output or any one of a group of related outputs (Nadler, 1984).

5.6.3 Action research process

The procedures and interventions listed below were designed, developed and implemented to assist the ETD practitioners in their own development and to support prospective career moves and development (Table 5.18).

Focus area	*Research interventions*	*Research cycle* 1	2	3	4	5
Practitioner development	• HRD analysis toolbox				●	
	• HRD management toolbox				●	
	• HRD guideline 1998				●	
	• Student administrator development				●	
	• Mentorship development and implementation				●	
	• Individual and group learning facilitator development				●	
	• Practitioner development				●	●

Table 5.18 – Practitioner development interventions

Practitioner development focused on changing individuals. In this respect, it was unlike learner development, which focused on changing the collective knowledge and skills of a work group or an organisation, and it was unlike training and development, which focused on work requirements. Practitioner development is a tool for anticipatory socialisation, the process by which an individual acquires information about and experience in a job or role prior to entering it (Feldman, 1981).

Traditionally, practitioner development has prepared the practitioner for future work. However, it is not truly future-orientated, because most educational efforts perpetuate notions based on the experiences of others and conventional best practices (Glueck & Jauch, 1984). To be effective, traditional and thus culturally bound practitioner development must be based

on a comprehensive career development programme. Practitioner career development programmes that make the practitioner development effective have two development components (Rothwell & Sredl, 1992):

- Organisational
- Individual

It was found that what ETD practitioners do in planning their careers should be matched by different but corresponding organisational efforts. Hence, practitioner development stems from career development programmes in which ETD practitioners plan what they wish to do and who or what they wish to become. At the same time, managers and leaders should decide how many ETD practitioners they need over time and what skills the practitioners should have. Practitioner development is one vehicle for realising individual career development and aspirations (Walker, 1980).

Practitioner development on its own is rarely adequate to ensure promotion or career moves. ETD practitioners must quite often perform at an above-average level in their current working environment to be considered for advancement, and it was found that the following elements as supported by Werther & Davis (1985) are important for the practitioner (Table 5.19):

Elements	*Description*
Visibility	• How well known the practitioner is to supervisors and managers in departments to which he/she would like to move
Willingness to move	• How willing is the practitioner to develop and to make a career move
Mentors	• How successful is the practitioner in identifying individuals and establishing mentoring relationships with the leaders who can further his or her career
Luck	• How lucky is the individual in being in the right place at the right time

Table 5.19 – Elements influencing practitioner career development

During the needs analysis process it was found that various tools and guidelines needed to be developed to support practitioners in the workplace.

5.6.3.1 HRD analysis toolbox (Appendix T)

During the interviews and discussions with the ETD practitioners it was found that an explicit need for an analysis development tool existed. The researcher investigated the various types of analysis that might assist the ETD practitioners. The investigations resulted in the development of the HRD needs analysis toolbox. The toolbox contains 15 different forms and templates of different types of analyses. The ETD practitioners take a specific analysis template and adjust it for the relevant application, demographics and target population.

The *HRD Analysis Toolbox* (Cilliers, 1998b) was developed for the purpose of assisting ETD practitioners with the analysis of the training and development process. The starting point for implementation of a formal HRD strategy is an analysis of the environment (Rothwell & Kazanas, 1994a). According to Walker (1980: 145), "an analysis is a process of gathering and examining information on the principal work activities" of a task and the qualifications (skills, knowledge, attitudes) necessary to perform those activities. All the individual analysis templates in the *HRD Analysis Toolbox* therefore focus on answering two specific questions:

- What are the outcomes of each analysis tool used?
- What knowledge, skills and attitudes are needed by an employee to be able to carry out these activities or to achieve these outcomes?

It was then found that the needs analysis was a logical starting point for HRD interventions and planning for them. The many approaches to analysis (Walker, 1980) resulted in the development of the analysis tools. It was also found that depending on how detailed they are, analyses will highlight work,

activities or expected outputs. No single approach or analysis was satisfactory and complete enough for all uses. Each type of analysis was more appropriate for some uses than for others.

5.6.3.2 HRD management toolbox (Appendix S)

The performance of ETD practitioners in the training and development settings depends to a great extent on the willingness and the ability of other employees and managers to interact (Schein, 1993), and the *HRD Management Toolbox* (Cilliers, 1998c) was designed to help the ETD practitioners to achieve this.

The toolbox assisted the ETD practitioners and team leaders in their daily tasks and provided a variety of information that was and could be utilised in the HRD processes. The toolbox contains 40 different templates, providing the ETD practitioners with information varying from a simple evaluation report to a more complex vendor contract. The contents of the toolbox were based on the outcomes of one-on-one interviews with the ETD practitioners. It was found that the *HRD Management Toolbox,* like other HRD efforts, served as a tool (Feldman, 1981) for helping the ETD practitioners to:

- assist managers and employees in relation to various training and development issues and situations;
- equip managers with the skills needed to formulate strategic business plan inputs in problem-solving groups and meetings; and
- implement strategic HRD business plans when used to prepare employees for their next work output or series of outputs.

The most significant lesson learned from the implementation and use of the toolbox was a confirmation of the lack of ETD practitioner experience and a sound knowledge of educational principles.

5.6.3.3 HRD guideline 1998 (Appendix K)

The *HRD Guideline 1998* (Cilliers, 1998f) provides potential trainees with information on the different HRD interventions, descriptions of the interventions and contact person/s' information. This document was also used as a marketing tool and contains information on the following (Cilliers, 1998f), identified as necessary during the HRD workshop session:

- Overview of the HRD process
- Strategic leadership
- HRD teams and team leaders
- Description of products
- HRD projects

The main benefits derived from the guideline are tabulated in Table 5.20:

HRD contribution	*Findings*
Concentration	• This guide contained a concentration of HRD activities to sharpen the skills of the ETD practitioners and employees who were already performing well
Market development	• The market development attuned ETD practitioners to new learner groups inside and outside the organisation
Product development	• The HRD products were developed and expanded to offer new products, new services and new delivery methods
Innovation	• The guideline provided stimulation for innovation in which HRD was directed towards creating new ideas, stimulating strategic thinking and providing new experiences rather than purveying old ideas

Table 5.20 – HRD guideline findings

The high demand for the guideline from external organisations and employees within Eskom indicated that the document served its purpose.

5.6.3.4 Student administrator development (Appendix R)

The *Guideline for a Student Administrator* (Cilliers, 1998d) has provided practitioners with a framework within which to operate and to report on training and development interventions. The needs analysis and interviews with the administrators indicated that specific information was required to clarify the role, place and expectations of the administrator. As a result, the administrator guideline addresses the following issues (Cilliers, 1998d):

- Definition of a student administrator
- Competencies required
- Criteria for the selection of a student administrator
- Role of a student administrator
- Responsibilities of a student administrator
- Condensed output structure for a student administrator

The single most important factor to emerge from the development of this guideline was the significance of record-keeping and reporting on the overall, macro and micro training plans. Identified training and development interventions for the student administrators were implemented to address the training gaps. As Nadler (1984: 118) puts it, "Training is defined as learning related to the present job". It narrows the gap between what the ETD practitioners know or can do and what they should know or be able to do. This guideline proved useful as a short-term change effort for improvement in relation to:

- present job performance;
- the traditional approach to employee and learner well-being; and
- the record-keeping of expenditure related to training and development.

During the organisational alignment phases and learner development processes it was found that a need existed for the improvement of the mentor development and support systems. The close co-operation and relationship that existed between the student administrator and the mentor was of such a nature that it justified the development of a mentor guideline alongside the administrator guideline.

5.6.3.5 Mentorship development and implementation (Appendix Q)

A guideline for mentorship was designed, developed and implemented to address various mentor-related needs in the organisation. The *Guidelines for Mentorship* (Cilliers, 1996g) were developed to provide the technical employees (line employees who fulfil the role of part-time ETD practitioners) and ETD practitioners with a model for personal and work-related development. The guideline included the following, the need for which was derived from the investigation of national and organisational alignment and the learner development processes:

- Definition of a mentor
- Competencies required
- Criteria for the selection of a mentor
- The role of a mentor
- The responsibilities of a mentor
- The responsibilities of a trainee

The mentorship guideline included various competency definitions to assist the mentor with a generic overview of required skills. Figure 5.4 gives an overview of the mentorship system developed and implemented in the Transmission Group.

It was found necessary to distinguish between the operational and support functions. The two focus areas illustrate in Figure 5.4 were defined as a result – the discipline mentors and the support structure. Each faculty chief mentor identifies mentors and coaches to support the process. The support structure provides the administrative, educational and legislative requirements. The student council represents the students on forums and in meetings.

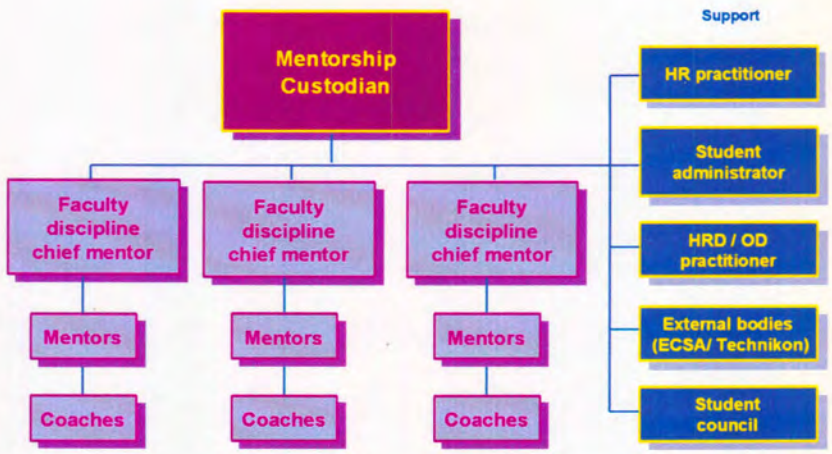


Figure 5.4 –Mentorship system implemented

More than 50 line mentors and coaches were trained by Transmission using the individual and group learning facilitator information obtained during the development. These roles contributed to the HRD practitioner development as part of the NQF alignment. The line mentors and coaches used this opportunity for their own development. The feedback received from the mentorship forums implied a radical change in the approach towards mentorship and the training of mentors; it therefore became necessary to consider the development of the individual and group learning facilitators, as discussed in the next section.

5.6.3.6 Individual and group learning facilitator development

The development initiatives for individual and group learning facilitators were implemented to align the facilitators with the NQF requirements (South Africa, 1995b; South Africa, 1998a). The specific target population was the mentors and coaches utilised in the Eskom Transmission Group. The development was carried out in accordance with the career path of the HRD practitioner as describe in Chapter 4. External consultants and vendors were used to develop and present the training. The course material was initially presented in two trial courses and changes were implemented after evaluation and feedback to the developers. The course was then made available for use throughout Eskom.

Some authorities contend that truly effective mentorship or individual or group learning facilitation relationships cannot be engineered. All true development, they hold, is really self-development (Gardner, 1963; Hague, 1974; Pedler & Boydell, 1980). There is some truth in this argument, because successful employees are motivated from within rather than by someone else. However, these employees still need ETD practitioners to assist and keep a watchful eye on their development. The findings obtained during the facilitator development matched the needs identified during the national and organisational alignment. In addition, the following issues were identified (Table 5.21):

Additional issues identified
• The integration of the mentorship development programmes with formal institutions • The need to support the employees with development that had not been approved by the line managers • Accreditation of mentorship development • Recognition and reward for mentors, which are currently non-existent • The implementation of the Transmission mentorship system throughout Eskom • The explicit need to develop mentorship at an executive level to support senior mangers and senior general managers in Eskom

Table 5.21 – Additional mentorship development issues

5.6.3.7 Practitioner development

A course for HR/ETD practitioners was developed and presented within Eskom to sensitise the practitioners to the changing legislation and transformation in South Africa and within Eskom. Various target groups were identified to attend the course.

After the initial implementation of the practitioner models it was found that:

- the duration of the course was too long for managers to attend;
- an information overload occurred;
- the cost for the training of local ETD practitioners to present the courses was too high.

The practitioner development modules went through a modification phase and specific target groups were identified for presentations. These included the following:

- Senior and top management
- Middle management
- First line supervisors
- ETD practitioners
- Employees

The senior and top management with time constraints were given an overview that ranged between 30 minutes and one hour. The more involved middle managers attended a two-day workshop and the ETD practitioners completed a one-week course on the development. Additional modifications implemented in the course covered the following:

- Introduction to and roadmap for the practitioner's guide
- Preparation for scheduling and facilitation framework

- Workshops for work profiles and unit standards
- Application in human resources practices
- Quality assurance
- Accreditation

The HR/ETD practitioners who completed the course received a toolkit with the necessary reading material, transparencies and posters to equip them to present it locally in their environment. The practitioner development and sensitising was beneficial and was shown to:

- increase the visibility and credibility of the practitioners, spurring interest in the buying of their products;
- serve as a means to teach and educate other employees about the changes and transformation in the organisation; and
- sensitise the employees about the transformation in South Africa and its impact in the organisation.

5.6.4 Practitioner development findings

Essential results from the research into the development of the ETD practitioners include information on:

- Practitioner roles, skills and knowledge requirements; and
- time utilisation and development matrix.

5.6.4.1 Practitioner roles, skills and knowledge requirements

The most significant input in relation to the practitioner's roles, skills and knowledge requirements was the development of the practitioner roles in line with the NQF requirements. It was found that ETD practitioners need to take on the following roles:

- Skills builder
- Skills contributor
- Knowledge contributor
- Workplace leader

It was also found that the application of these different levels of skills provided the employees with partial development opportunities without their having to make career changes. This also paved the way for the virtual organisation approach used in the Transmission School of Technology, where there are only three full-time ETD practitioners and more than 50 courses are presented by part-time ETD practitioners and subject matter experts.

5.6.4.2 Time utilisation and development matrix

During the development of the learning interventions it was found that the time utilisation of the ETD practitioners caused commitment and performance problems. It was decided after a focus group discussion to introduce time utilisation parameters that provided the practitioners with four time commitment categories to demarcate their involvement in the learning systems, namely:

- Part-time trainer
- Full-time trainer
- Specialist
- World-class leader

The competencies and skills levels required of the ETD practitioners were found to be poorly defined. This caused confusion in terms of the skills that were acceptable and the level at which previous experience and qualifications should be recognised and accredited. A solution to these problems was the practitioner development matrix as illustrated in Table 4.7.

Table 4.7 provides an overview of the developmental requirements relative to the different skills, knowledge and time utilisation for the practitioner involved with the learning interventions. Minimum qualifications are mentioned in the table, but serve as an indication only. However, for the serious practitioner formal qualifications do matter and provide the basis for the intellectual educational foundation so urgently required by the industry to develop training and development specialists and world-class leaders. The development matrix also indicated the various roles and preferred skill levels that should be pursued by the practitioner.

The following section (5.6.4) reports on the interventions developed to support the practitioner as identified during the provisional evaluation, training needs analysis, HRD strategic sessions and ABET evaluation.

5.7 LEARNING PROCESSES AND SYSTEMS

5.7.1 Subsidiary research question

The following subsidiary research question was formulated for the research into learning processes and systems:

Subsidiary research question
How can learning processes and systems assist in the advancement of employees?

5.7.2 Data gathering instruments

The following data gathering methods and instruments were used to gather information relating to the learning processes and systems (Table 5.22):

		Instruments						
	Learning processes and systems How can the learning processes and systems assist in the advancement of employees?	Questionnaires	Researcher's journal	Interview schedules	Formal and informal discussions	Messages generated by participants	Computer-generated results	Training programmes and guidelines
Methods	Surveys	●						
	Journals		●					
	Interviews			●				
	Focus groups				●			
	Electronic mail					●		
	HR database						●	
	Practical training programmes							●

Table 5.22 – Methods and instruments used in relation to learning processes and systems

All the data-gathering instruments were used for the work relating to the learning processes and systems. Performance – as Bailey (1982: 4) defines

it, "the result of a pattern of actions carried out to satisfy an objective according to some standard" – and outcomes played an important role in relation to the expected results from the learning process and systems. Training and development can improve the performance of learning systems and processes by:

- improving individual abilities;
- stimulating motivation;
- matching individual ability to activity requirements from the systems;
- matching the individual to contextual requirements and processes.

However, the learning processes and systems cannot change work activities or work context. It was found that they change individuals by furnishing them with new knowledge and skills pertaining to the work (Bailey, 1982).

5.7.3 Action research processes

Table 5.23 indicates the different interventions utilised in the development of the learning processes and systems. The performance of the learning processes and systems focused on three interrelated elements during this phase of development (Bailey, 1982):

- The individual in the process (who)
- The process and system activity (what)
- The context in which it occurred (where)

Focus area	Research interventions	Research cycle 1	2	3	4	5
Learning processes and systems	• External ABET survey			●	●	
	• Eskom ABET audit			●	●	
	• ABET service-provider evaluation			●	●	
	• Experiential process development				●	●
	• Transmission School of Technology			●	●	
	• Induction programme development			●		
	• Eskom Transmission Group HRD Web-site			●	●	
	• Eskom Transmission Group profile					●

Table 5.23 – Research interventions relating to learning processes and systems

Individual performance is influenced by ability (Bailey, 1982). To improve systems and process performance, change must occur in relation to the individual, the activity or the context, or some combination of the three.

5.7.3.1 External ABET survey (Appendix G)

An external ABET survey was initiated to provide Eskom with relevant information on the current ABET initiatives in South Africa. This was used to benchmark Eskom's own ABET initiatives and the return on its investment in this regard.

This benchmarking report on ABET is the first such exercise known to be undertaken in South Africa and comprised a survey of ABET projects in selected parastatals, national companies and smaller organisations. The following organisations and businesses were included in the ABET survey (Appendix G):

- AECI Explosives Ltd (Modderfontein)
- City Council of Pretoria
- First National Bank (National)
- Gencor (Ingwe Coal Division)
- Greater Johannesburg Transitional Metropolitan Council

- JCI (James Park Training Centre)
- Pick 'n Pay Steeldale (National)
- Reunert Defence Colleges
- South African Breweries
- Spoornet Johannesburg (National)
- Telkom SA (National)
- Toyota SA Marketing (Johannesburg)

The report was based on findings resulting from personal interviews with ABET managers, directors or co-ordinators from these organisations. The ABET survey covered the following two main areas:

- Information regarding the organisations and learners
- Information regarding the nature of the programmes

All companies and organisations were assured of confidentiality with regard to information supplied in the questionnaires used and letters pledging confidentiality were signed by the responsible persons commissioned to collate the benchmarking information. To honour the relevant parties' willingness to participate, no names or statistics regarding specific organisations or businesses are reflected in this report. However, the researcher utilised the information to provide a holistic view of the current status of ABET in South Africa.

- **Information regarding the organisations and the learners**

The ABET survey covered the following topics:

A. Employee information
B. Qualifications and accreditation
C. Learner and employee input

D. Financial cost

A. Employee information

Only one of the respondents was unable to provide data concerning the percentage of employees involved in any ABET programmes. ABET involvement ranges from 0,01% to 30%. Average ABET involvement was just below 18%. The highest percentage occurs amongst the parastatals. It is, however, significant that some of the organisations included in the survey have a need for a more highly skilled workforce and their training programmes focus to a greater extent on further education, as the majority of the learners require specialised training rather than ABET training.

The dominant age groups of ABET participants are 36-45 and 46-55 years. Ten of the twelve respondents indicated percentages and numbers of learners in the lowest and second lowest bands (literacy and level one), which averaged 57%, indicating that the majority of ABET participants enter the programme at the basic literacy level. The four exceptions to this practice indicated that they need a more highly skilled workforce or have very few participants in their ABET programmes. The high percentage of learners in the two lowest bands may also be because some of these programmes are fairly new and have only been in existence since 1995. It was difficult to ascertain the success of the ABET programmes of the 12 respondents, owing to an unwillingness on their part to declare their success rate.

B. Qualifications and accreditation

Seven of the respondents indicated the Independent Examinations Board (IEB) as the sole accreditation and certification body. Two organisations indicated more than one accreditation body. Nine respondents indicated that a full national certificate was awarded at the

end of their ABET programmes. Nine of the respondents indicated that certificates issued at the end of each level were portable and could be transferred to ABET programmes at other organisations and institutions.

C. Learner and employee input

All 12 of the respondents stated that feedback on the quality and effectiveness of the courses and tutors is elicited from the learners on an ongoing basis. Only two of the respondents replied in the negative to the question whether the employees were required to contribute to the structure and content of the courses offered in the programme; however, they indicated active line management and organised labour involvement.

D. Financial cost

Costs ranged from R1 700 to R36 000 per learner. It was assumed that the cost of R36 000 per learner covered all four levels, as this particular organisation's ABET programme is completed in one year, which equals R1 241 per learner per level.

It is clear that the smaller businesses have budgetary constraints that impact on the effectiveness of the ABET initiatives. The parastatals indicated a huge difference (R1 700 versus R10 000 per learner) in budgets allocated for ABET programmes, with mixed results in terms of pass and failure rates.

Some remarks from the respondents indicated that a more visible management presence and support would help to improve the self-respect of the learners, promote a higher rate of productivity within the organisation and encourage further training and development.

- **National and regional co-ordination of programmes**

Ten of the respondents indicated national co-ordination of their ABET programmes. The mining houses indicated no co-ordination with other mining organisations in terms of ABET programmes; however, they try to keep informed about national developments. A lack of policy and management commitment can be identified as one of the reasons for a more co-ordinated ABET approach not being pursued at national level.

- **Effectiveness of the ABET programmes**

Eleven of the respondents expressed satisfaction with their existing ABET programmes, although all of the respondents expressed some kind of dissatisfaction with specific elements of their programmes. Dissatisfaction ranged from a lack of communication after completion of the programme to utilisation of the learners' newly acquired skills in the workplace.

- **Nature of the ABET programmes**

The nature of the ABET programmes was also investigated, with the following topics being covered:

A. Outsourced and in-house programmes
B. Facilitator and tutor information
C. Subjects and courses
D. Relevance of the programmes
E. Duration
F. Recognition of prior learning
G. ABET learning materials

A. Outsourcing versus in-house

Eight of the respondents indicated that their ABET programmes were in-house and three of the organisations indicated a combination of in-house and outsourced programmes. The information revealed that outsourced programmes focused on ABET levels three and four.

B. Facilitator and tutor information

The respondents' facilitator and learner ratios varied, for various reasons. Ratios are indicated in Table 5.24.

Organisation	Learners	Tutors	Factor
A	300	1	0,003
B	315	1	0,003
C	1 052	1	0,0009
D	3 000	10	0,003
E	6 000	19	0,003
F	20 000	19	0,0009

Table 5.24 – Learner to tutor ratios

The reasons for the differences in learner/tutor ratios indicated in Table 5.24 may be due to some of the organisations outsourcing their ABET programmes fully or partly and the fact that the ABET service-providers are responsible for their own tutors. In addition, the high learner/tutor ratios are due to budgetary constraints in the smaller organisations.

Most of the respondents have a combination of certificated and degreed tutors. Two of the respondents indicated that the majority of their tutors had no tertiary qualifications and two other respondents employed postgraduate tutors as well. One of the respondents indicated that a post-matric qualification was essential to ensure the success of their programme. It was evident from the interviews that some of the tutors were appointed because of light workloads and not

because they are suited for the positions. It was also stated that insufficient training was provided for the internal tutors and facilitators and that the external facilitators were not effective as they lacked a sense of commitment.

C. Subjects and courses

Ten of the respondents indicated that mother tongue literacy formed the basis of their ABET programmes, while another indicated English and numeracy. Other combinations included English / communication and numeracy / mathematics. Five of the respondents indicated that level 4 (NQF Level 1) was part of their ABET programmes, while one other respondent indicated technical subjects as accredited and facilitated by a local technical college.

It is significant that eleven of the respondents included mother tongue literacy in their programmes, while two other organisations included a financial life skills programme in their ABET projects from level 1 to level 4.

D. Relevance of the programmes

Three respondents indicated that the programmes were not integrated into the working environment, while one respondent claimed that the programme was not integrated as effectively as it might be. The other respondents did not elaborate on how suitably or acceptably the programmes were integrated into the workplace environment.

E. Duration

Half of the respondents had part-time ABET programmes running, ranging from two to three hours per day, two or three times a week. Two organisations offered a combination of both part-time and full-time

programmes. Two other organisations offered ABET programmes where level 1 to level 3 could be completed in a year on a full-time basis, with level 4 then being done on a part-time basis. Two organisations required the learners to contribute half of their own time to the programme.

F. Recognition of prior learning (RPL)

Eleven of the respondents applied recognition for prior learning (RPL) principles within their ABET programmes. Seven of the respondents were able to elaborate on the screening and placement tests utilised to determine RPL, which are developed by ABET service-providers and consultants. However, from personal interviews with the respondents it has been deduced that the RPL assessments are not very effective and are not sufficiently formal to give accurate placement.

G. ABET learning materials

Six of the respondents indicated that a combination of in-house and externally purchased learner packages are used in the ABET programme. Only one of the respondents did not express dissatisfaction with the content and the providers of the materials. One of the respondents indicated that they provided additional enrichment materials to support the contents of the programme.

5.7.3.2 ABET service-provider evaluation (Appendix H)

The purpose of the investigation into the ABET service-providers was to establish the type of service-providers available, the level of education provided by the suppliers, and the recognition and level of certification given to the learners upon completion of ABET courses. The following service-providers were evaluated:

- BESA and Stratecor
- CEP
- COLSA
- ELP (English Literacy Project)
- Enter Education
- Hough and Horne
- M&T Focus
- Triple E below
- PROLIT

Worthwhile and specific information about the service-providers is discussed to emphasise the differences and types of services provided.

A. BESA and Stratecor

BESA and Stratecor work together in the ABET field to provide ABET and project management expertise. They develop the internal capacity of an organisation as regards ABET, assess their learning material and then incorporate it into their programme, making sure that the quality of the programme is not compromised in any way. Alternatively, a fully outsourced option is available, and/or expert facilitators are available where needed. Although BESA and Stratecor provide outcomes-based project-driven ABET programmes and place the emphasis on customisation, their courses and materials are relatively costly.

B. CEP

Continuing Education Programme (CEP) provides training for facilitators and materials, which are fairly effective, for ABET levels one to three. Excellent, reasonably priced ABET English reading materials are produced by this provider.

C. COLSA / PLS

Progressive Learning Systems (PLS) uses a unique methodology that strives to establish a culture of learning in under-educated adults. The entire ABET programme is based on learning skills that encourage the learners to pursue knowledge and study independently. PLS emphasises outcomes-based education and training (OBET) educational systems and is presently replacing the Independent Examinations Boards (IEB) outcomes with unit standards identified by the ABET National Task Team. PLS offers prior assessment of trainers and learners based on competency and placement respectively.

D. Enter Education

Enter Education's ABET materials are recommended for use with other ABET materials. Enter Education's involvement with the IEB is emphasised and it does not regard itself as material-specific, as its ABET ETD practitioners are willing to train facilitators provided materials meet with the recommended requirements of being learner-centred, task and life skills-orientated and outcomes and competency-based.

E. M&T Focus

M&T Focus's realistic adult maths series (RAMS) is designed for numeracy as well as pre-N1 mathematics, which is equivalent to level 4 and includes formative numeracy, numeracy and functional numeracy.

F. Triple E Training

Triple E Training provides dynamic programmes and assessment and develops its own workbooks according to set unit standards. Specific needs are accommodated according to organisations' requirements.

Triple E Training has a unique assessment method, and facilitators trained by this provider can be accredited by the IEB.

The above ABET service-providers are thus able to provide customised courses and ABET learning material to meet the needs of organisations whilst adhering to the recommendations of the NQF, SAQA and the IEB. The overriding factor in choosing the programme best suited to Eskom's ABET requirements is that the programme should be implemented not only as a means to eradicate illiteracy and innumeracy amongst learners, but also to develop critical thinking skills so that further and higher education is pursued. This in turn develops better self-esteem and confidence amongst the learners, so that increased productivity results in the workplace.

5.7.3.3 Eskom ABET audit (Appendix F)

An Eskom ABET audit was initiated to evaluate the current utilisation of ABET, the return on investment and the utilisation of resources. Dissatisfied line and business unit managers approached the Eskom Management Board requesting a fully-fledged audit into all ABET activities in Eskom.

The Eskom ABET report highlighted various categories of issues that have a negative impact on adult basic education, training and development within Eskom and the projects associated with them. The following findings and recommendations are presented by category as they arose from the ABET audit conducted at the end of 1997 and the beginning of 1998 (Appendix F) (Table 5.25):

Category	Recommendations
Integrated learning framework	• An integrated learning approach should be developed and implemented according to and in line with the *SAQA Act* (RSA, 1995a). This framework should be based on the guidelines of the National Qualifications Framework. It is also recommended that only one qualification be developed, namely NQF Level 1.
Governance	• The governance of ABET in Eskom should reflect clear organisational roles addressing the corporate, line and ABET staff. These recommendations should include clear and achievable targets for the next business cycle, with a view to the five-year window.
Management	• Various management problems were identified and require a movement towards appropriate management styles and control supported by proper performance management measurements.
Infrastructure and delivery	• A more effective and efficient service should be provided by the ABET staff, focusing on the programmes, duration, success rate and support provided for the learners. Outsourcing of the ABET function to accredited national service-providers that can guarantee an acceptable success rate and nationally recognised qualifications should be considered.
Organisational development practices	• Competency-based and outcomes-based practices addressing the overall development and competencies of the ABET facilitators should be developed.
National positioning and alignment	• NQF principles and practices should be implemented, including the design and development of an integrated framework incorporating NQF Level 1 qualifications. A nationally recognised and accredited qualification should be provided and accredited service-providers used.

Table 5.25 – ABET audit recommendations

5.7.3.4 Experiential learning process development

A draft experiential process model was developed and presented to nine participating technikons as part of the opening of the Transmission School of Technology in 1998. The model was subsequently refined on the basis of modifications suggested by focus group discussions. The development of the process went through a redesign phase after an additional formative evaluation session. Specific issues were identified that needed additional support, for example:

- Lack of practical and work-related experience on the part of the ETD practitioners
- Lack of theoretical knowledge to provide an understanding of the philosophical process used in the design and development of the process
- Lack of project management skills
- Failure to deliver expected outputs as negotiated

To address these problems, the following interventions were found to be necessary to support the project approach and as part of the education of the ETD practitioners:

- Project initiation report
- Conceptual framework
- Project definition report
- Executive plan
- Project plan
- Project implementation
- Evaluation and final report

The project process implemented used the principles elucidated below to support the participants (Table 5.26 and Figure 5.5).

Project phase	Description
Project initiation report	• The project initiation report was based on current needs identified within the organisation. These were deduced from an environmental analysis or specific needs identified in the group or by individuals.
Conceptual framework and executive plan	• The conceptual framework supported the problem identified in all its aspects, and included the integration of the project at a national, macro and micro level across disciplines. The executive plan accommodated the development of the delivery and management systems, including the type of resources required, initiating the project and taking it from a conceptual phase to actualisation.
Project definition report	• The project definition report included the development of the project plan based on project management principles and approach. This incorporated the levels and resources required to carry out the development of the project.
Work breakdown structure	• The work breakdown structure reflected the structure for the project as stipulated in the project definition report. However, this level included detailed actions and project plans necessary to carry out the project. Clear and achievable key performance indicators (KPIs) and actions were identified and stipulated at this point.
Project plan	• The project plan reflected the development and implementation of the project together with the appointed and empowered project team members.

Table 5.26 – Research project phases

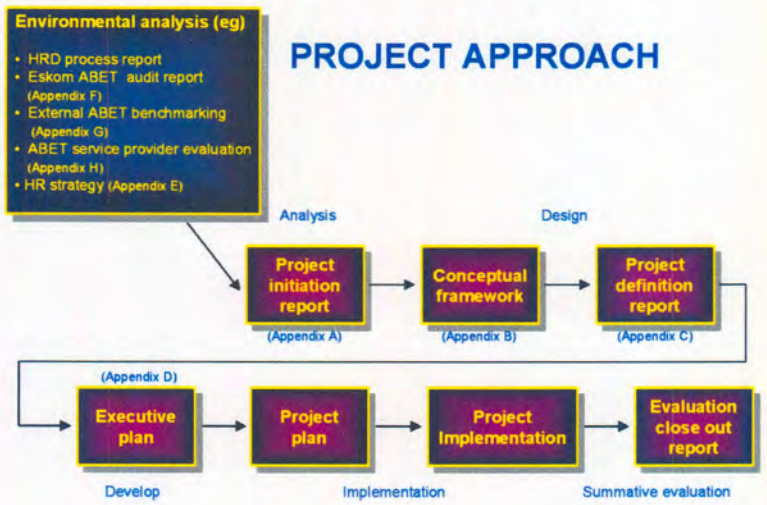


Figure 5.5 – Project approach used for this research project

The project approach described above was used to assist the project members with a generic project approach and to ensure a high project quality.

5.7.3.5 Transmission School of Technology

The Chief Executive of Eskom, Allen Morgan, officially opened the Transmission School of Technology in 1998. The school was designed and developed to operate on the principles of a virtual organisation, with only three full-time employees. However, more than 50 courses are currently presented on the premises. Relevant subject matter experts (SMEs) were approached and contracted to present the courses at the school. The courses were designed in such a way that none have a duration of more than a week. The focus of the school was to provide for the development of pupil technicians and A and B band employees. The SMEs were provided with development opportunities, and the essential HRD development included the following training:

- Individual learning facilitator
- Group learning facilitator
- Instructional techniques
- Presentation skills

Key issues related to the establishment and opening of the Transmission School of Technology included the following:

- Assessing the learners' needs identified the lack of appropriate knowledge and skills. The designing of the development curricula was crucial in addressing the needs that had been identified.
- Clarification of the learners' characteristics using the analysis toolbox helped prepare for the actual instruction of the learners.

5.7.3.6 Induction programme development

The organisational alignment process identified the need for an inclusive induction programme. An induction programme was developed to accommodate the process re-engineering and transformation in the Transmission Group. New employees appointed or transferred to the organisation in the last two years were scheduled to undergo the induction programme. The programme was intended to accommodate the needs of employees at various levels and included the following (Cilliers, 1997) (Figure 5.6):

- Orientation session
- Eskom induction
- Transmission induction
- Transmission Internet-based induction

Figure 5.6 – Transmission Internet-based induction programme

The induction programme satisfactorily assisted the integration of new employees into the organisation. Pre-test and post-test findings indicated

(Table 5.27) an improvement of business understanding from 48% to 83% (Cilliers, 1997: 83).

	Pre-test	*Post-test*
Questions asked	26	26
Total marks for the test	78	78
Highest marks obtained	87%	100%
Lowest marks obtained	10%	67%
Average for the test	48%	83%

Table 5.27 – Pre-test and post-test findings

The whole of Eskom was introduced to the induction programme during an Eskom television broadcast. Eskom employees were invited to view and use the induction programme in view of:

- the Eskom television exposure;
- the possible improvement of business understanding; and
- the availability of the Intranet-based induction programme.

5.7.3.7 Transmission HRD Web-site

The Transmission HRD Web-site was designed and put on line to make the relevant information more freely available to employees with access to the Eskom Intranet. The HRD Web-site gives employees the opportunity to access the information directly or to download and print it whenever needed. Hard copies of the HRD information were made available to employees who desired them.

The creation of the Transmission HRD Web-site was an important starting point for subsequent HRD activities. The frequent requests for HRD information prompted the development of the Web-site. In addition, the HRD Web-site brought known information about the HRD activities and workforce together in one place. It was found that the HRD Web-site should contain information on (Figure 5.7):

- strategic HRD management;
- HRD product lines; and
- available products, modules and projects developed.

Figure 5.7 – Transmission HRD Web-site

The management and maintenance of the site were an important responsibility of the HRD leadership, as it was essential that relevant information was kept current and up to date.

5.7.3.8 Transmission Group profile

The Eskom Transmission employees were analysed to develop a profile of the organisation in terms of:

- Racial composition
- Gender ratio
- Age groupings
- Years of service in the organisation
- Organisational grading

The Eskom Transmission Group consists of 2 162 employees (May 1999). Eskom utilises a modified Patterson grading system that comprises the following levels and employees per band (Table 5.28 and Table 5.29):

Band	*Description*
A band	• The A band employees are the lowest skilled people working for the organisation. Only two employees are currently on this grading and it is therefore not discussed in this research project. For the purposes of this study, they are referred to as the labour force (A band) and included as part of the A and B band employees.
B band	• The B band consist of two levels, namely B Lower and B Upper employees. The B Lower (BL) employees consist of semi-skilled or half-skilled people. These employees include labourers, utility men, secretaries and office workers. The B Upper (BU) grading caters for the more skilled employees and includes qualified artisans. For the purposes of this study, they are referred to as the labour force (B band) and included as part of the A and B band employees.
C band	• The C band consists of C Lower (CL) and C Upper (CU) employees. Semi-professional and professional people fall into this category. These include qualified technicians, newly qualified engineers and first line supervisors. For the purposes of this study, they are referred to as the semi-professionals (C band) and include the C band employees at CL and CU level.
MPSE and F band	• This category includes managerial (M), professional (P), specialist (S) and senior management (E) levels. For the purposes of this study, they are referred to as the management and professional levels (MPE band) and include the M, P, S, E and F band employees.
Trainees	• This trainee (TRN) level comprises the formal learnerships such as apprentices and pupil technicians. This category also includes the engineers-in-training who are currently busy with a 2-3 year experiential training phase and the formal apprenticeships that occupy a four-year period. For the purposes of this study, they are referred to as the trainees and include the TR1, TR2, TR3, TR4, CTL and CTU band employees.

Table 5.28 – Band description

The Transmission headcount includes the following statistics as obtained from the Eskom Transmission HR database in May 1999 (Table 5.29):

Band	Number of employees	%
A	2	0,04
B	684	31,6
C	926	42,8
MPE	394	18,3
F	1	0,01
Trainees	155	7,2
Total	2 162	100%

Table 5.29 – Employees per band

The transmission profile was used to establish the influence of development that had been implemented that led to promotions to different grading bands.

- **Detailed breakdown of Eskom Transmission employees**

The following areas were analysed on each band in a detailed breakdown of the Transmission employees:

A. Racial composition
B. Gender ratio
C. Age groupings
D. Years of service with the organisation
E. Organisational grading profile

A. Transmission racial composition

As is evident from Figure 5.8, the majority of the workforce in Transmission are white employees (50%), followed by black employees (38%). The official Eskom Employment Equity Policy depicts a 50% split and a balance between whites and the other races.

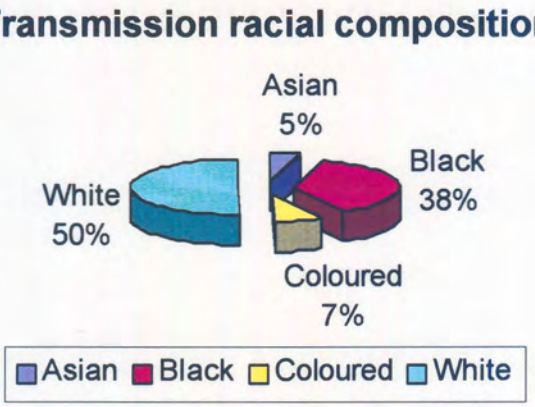
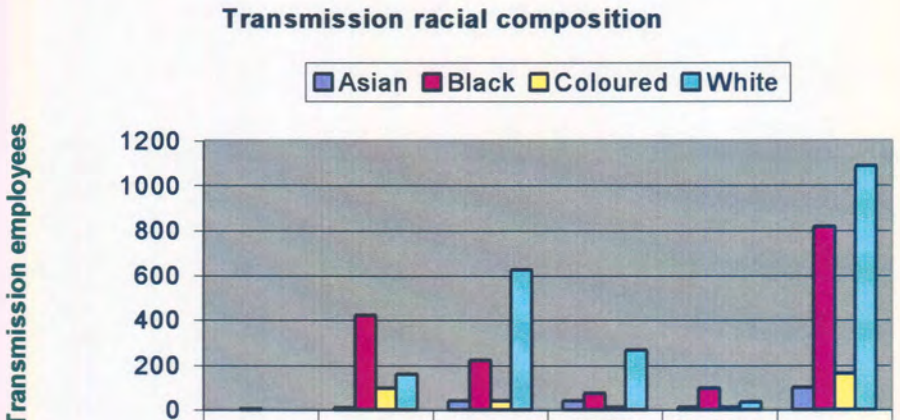


Figure 5.8 – Transmission racial composition

Although policies require a 50/50 split between the white and other races, it also requires 50/50 equity on all bands. As indicated in Figure 5.9, the employment equity balance does not do justice on the different bands at all, with whites in the majority in two of the five bands. The major concern still lies with the C band, with a 68% majority at this level.



	A band	B band	C band	MPE band	Trainees	Total
Asian	0	9	40	40	11	100
Black	2	421	222	74	97	816
Coloured	0	97	39	13	12	161
White	0	157	625	268	35	1085

Figure 5.9 – Transmission racial composition breakdown

Also clear from the table in Figure 5.9 is the discrepancy at the professional and senior management (C, MPE bands) levels in terms of racial balance. One of the reasons for this imbalance could be the high technical skill levels required by the Transmission Group as an organisation.

B. Transmission gender ratio

As indicated by Figure 5.10, the gender ratio reflects an 85% male dominance in the organisation. Once again, the strong technical and technological composition of the organisation requires a high level of technical expertise, in which the female gender is simply not well represented. at this time.

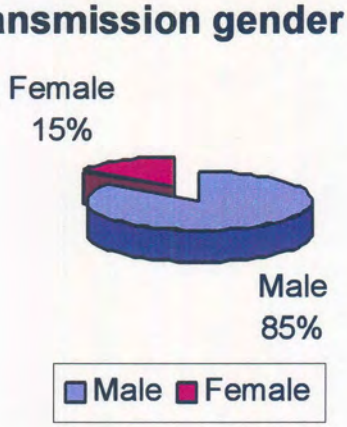


Figure 5.10 – Transmission gender ratio

The more detailed gender breakdown (Figure 5.11) reinforces earlier statements that females are not at all well represented at every level of the organisation. The highest level of female representation is 18% at the B band level, which consists of the secretaries and female office workers.

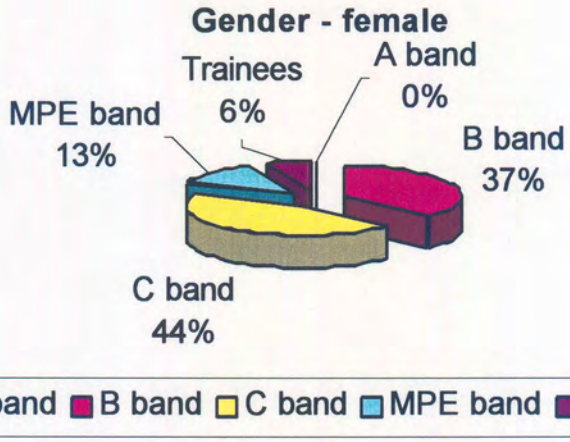


Figure 5.11 – Detailed breakdown of the gender ratio in Transmission

As is evident from Figure 5.11, the highest representation of female workers is in the C band (44%) and B band (37%), which includes most of the female technicians, secretaries and other female office workers.

C. Transmission age groupings

It can be seen from Figure 5.12 that 33% (693 of 2 162) of the employees fall into the 30-39 years age group, followed by 31% (674 of 2 162) in the 40-49 years age group.

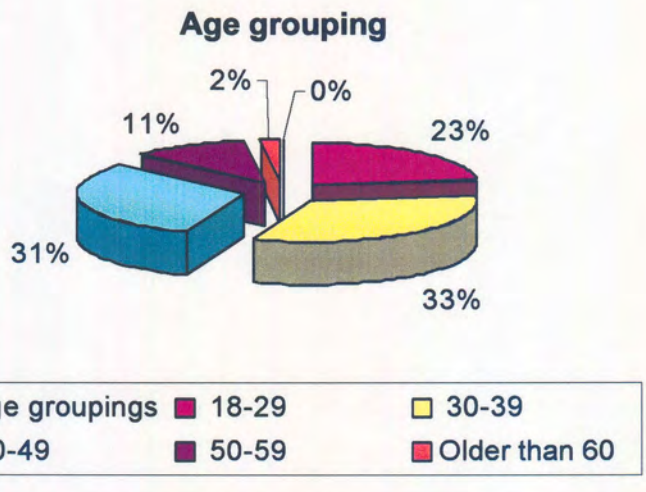


Figure 5.12 – Transmission age grouping

This means that 64% of the employees fall into an older age category, which makes the organisation an established and experienced workgroup. However, this also makes it difficult to elevate the younger generation to more senior positions, as they do not have the necessary work-related experience.

D. Eskom years of service

As indicated in Figure 5.13, 41% of the employees fall into the category of having 11 to 20 years of Eskom work-related experience, followed by nearly half that percentage (23%) in the category of 3-10 years of Eskom work-related experience.

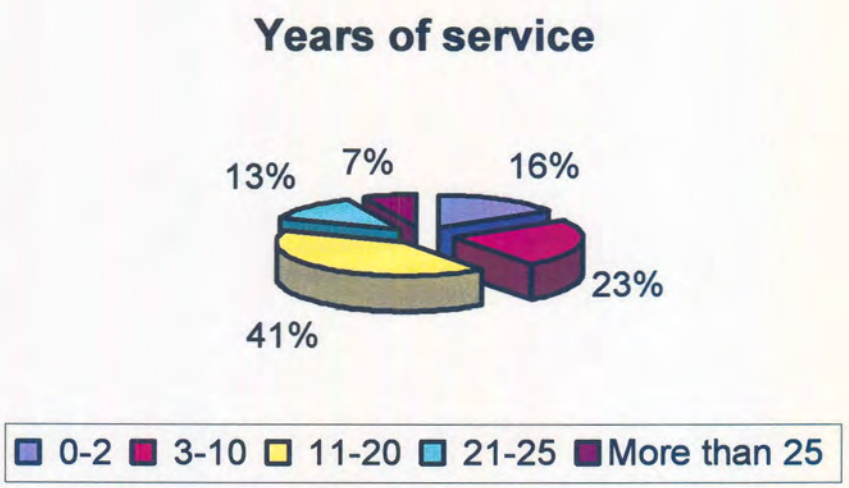


Figure 5.13 – Eskom years of service

It can also be seen from Figure 5.13 that 39% of the employees have less than 10 years' work-related experience in the organisation and 20% have more than 20 years' service in the organisation.

E. Organisational grading profile

Figure 5.14 shows that 43% of the workforce falls into the C band grouping, as is to be expected from a highly technological and professional organisation in Eskom. The lack of a need for lower grade workers is also evident from the lower percentage of A and B band employees in the Group.

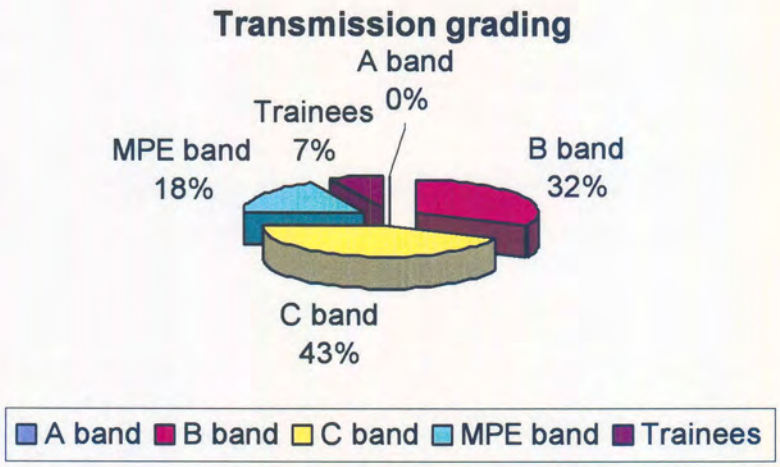


Figure 5.14 – Organisational grading profile

The Eskom Transmission Group profile reflected a ratio of 50% white against 38% black. This is not, however, a true picture of the racial demography. In the remote areas of South Africa where Transmission is represented, the ratio is even less representative. The cultural background of the employee also has a major impact when it comes to placement, and employees do not stay long in these areas.

However, the gender issue is an even greater problem for an organisation that is technically orientated – a 15% female representation does not say much for gender equity in the workplace. Nevertheless, capacity-building programmes to address these issues are being developed and implemented. The age grouping reflects an organisation with employees between 30 and 60 years of age. This creates a problem with developing younger people and replacing the older generation with them. Measures to address these issues have been introduced and include the following:

- Early retirement
- Voluntary separation packages

5.7.4 Learning processes and systems findings

The development pertaining to the learning processes and systems eventuated in the integration of 17 initiatives and sub-projects into four processes and systems (Figure 4.22 and Table 4.9). This integration provided the foundation for sub-teams to co-operatively join operations and work towards common objectives. The learning processes comprised the following:

- Delivery of learning interventions
- Project support
- Transformation
- Management and information systems

• Delivery of learning interventions

The research indicated that the delivery of learning interventions focused on maintaining the current initiatives, incorporating and modifying existing interventions and eliminating the gaps identified in the systems.

• Transformation

It was found that transformation sub-processes familiarised the organisation, employees and ETD practitioners with the current status, the intended transformation and the future desired state of the organisation. Various change drivers support the transformation initiatives.

• Project support

The project support outcomes provided the participants with a grouped or clustered approach to the different sub-projects and processes, with

sub-process and project managers responsible for the delivery of the negotiated sub-outputs.

- **Management and information systems**

  The main outcomes in relation to the management and information systems focused on the management and reporting of the required information on an appropriate MIS.

There are almost as many ways to conceptualise training and development design and delivery as there are authors on the subject (Nadler, 1979). Variations exist because authors do not agree on the same philosophy of instruction or learning (Rothwell & Sredl, 1992). HRD leaders and ETD practitioners should analyse problems so that corrective action addresses causes rather than symptoms.

Discrepancies in the learning processes and systems are important and cannot be tolerated. If a performance problem originates from a cause other than lack of individual knowledge or skill, ETD practitioners need to determine the cause. It was found that system problems originated from the following (Bailey, 1982) (Table 5.30):

Issues	*Problems identified*
Allocation of work	• Was the work inappropriately allocated? Work or job redesign must be used to correct the problems, not training.
Feedback	• How well, often and clearly and from whom do employees receive feedback about their performance? The frequency of feedback has been increased and its quality improved to correct problems.
Leadership	• To what extent do ETD practitioners agree with goals and objectives established at higher levels? Team-building and process approaches have been used to influence key changes in the organisation.
Policies	• Were the organisational policies interfering with the work requirements or with the realities of the work environment? Policies were reviewed and changed where necessary to eliminate the problems.
Practice	• Were ETD practitioners' tasks adequate for them to gain proficiency in the tasks they executed? Planned opportunities for skills development improved the situation.
Rewards	• Were rewards based on a single set of behaviours or outcomes? Incentives were examined and changes made where necessary to solve most of the problems.

Table 5.30 – Problems in relation to learning processes and systems

The findings obtained during the research into national and organisational alignment, learner development and practitioner development processes resembled those in relation to the learning processes and systems. The findings are reported on in the next section.

5.8 LEARNING INTERVENTIONS

5.8.1 Research question

The four subsidiary research questions addressed thus far serve to support the main research question, which is:

Research question
How can national and organisational alignment, learner development, practitioner development and learning processes and systems be integrated into an experiential learning process for the design of learning interventions?

5.8.2 Data gathering instruments

The following data gathering methods and instruments were used to gather information relating to the learning interventions (Table 5.31):

		Instruments used						
	Learning interventions How can national and organisational alignment, learner development, practitioner development and learning processes and systems be integrated into an experiential learning process for the design of learning interventions?	Questionnaires	Researcher's journal	Interview schedules	Formal and informal discussions	Messages generated by participants	Computer-generated results	Training programmes and guidelines
Methods	Surveys							
	Journals							
	Interviews			●				
	Focus groups				●			
	Electronic mail							
	HR database							
	Practical training programmes							

Table 5.31 – Methods and instruments used in research on learning interventions

5.8.3 Action research process

Focus area	Research interventions	Research cycle 1	2	3	4	5
Learning interventions	• HRD transformation • A and B band project report • Practitioner development • Implementation of the Skills Development Act			●	● ●	● ● ●

Table 5.32 – Research actions for learning interventions

Many attempts have been made to develop "media models, decision aids to help the practitioners select appropriate and cost-effective means of delivering instruction" (Rothwell & Kazanas, 1994a: 416). Over the years learning interventions have become increasingly sophisticated. ETD practitioners have realised that individuals vary in learning styles (Smith, 1996). Some instructional methods and media are more appropriate than others for specific learning situations, employees and objectives (Kemp, 1971). The process of transforming a learning intervention begins after the process has been appropriately sequenced and the learning delivery selected. There are three major steps in the process:

- Creating a training curriculum and syllabus
- Grouping objectives and outcomes into courses, unit standards and lessons
- Preparing and selecting content at each level

The learning process design used in this research assumed that work-related performance is always improved by:

- analysing how the work was currently being performed;
- assessing how well individuals were performing the work;
- designing interventions to encourage individuals to conform to present ways of doing the work.

On the other hand, there are cases when the learning intervention should anticipate future work requirements utterly unlike those that have existed in the past. Instead of narrowing the gaps between actual and desired work performance at present, the focus should be on gaps between:

- present, actual performance; and
- future desired performance.

In this sense, learning systems serve as a maintenance system, as Katz and Kahn (1978) use the term. They preserve existing systems by training employees in how to conform to:

- policies;
- procedures;
- methods; and
- rules.

This approach fosters consistency by creating uniform behaviour in regard to policies and procedures.

5.8.3.1 HRD transformation (Appendix I)

Transmission HRD strategic development included the alignment of the HRD process and the utilisation of resources. The development of a process approach was adapted to empower and involve relevant employees with the required skills in the processes. The product lines and priorities were refined and upgraded where necessary. The HRD flower (Figure 5.15) was developed and includes the following main focus areas (Cilliers, 1998a):

- Masifunde ('let us learn') for A and B band development
- Technical development

- Professional development
- HRD communication
- HRD projects
- HRD learning technology

Figure 5.15 indicates a three-layer flat structure approach for the delivery of the HRD interventions. Each team consisted of a team leader and team members. Team members from the line groups participated on the basis of a virtual organisation, and time commitments were negotiated with other teams in which the team member was involved. The team leaders form part of the strategic HRD team and HRD communications were a crucial underlying element in the marketing and promotion of the image of the team.

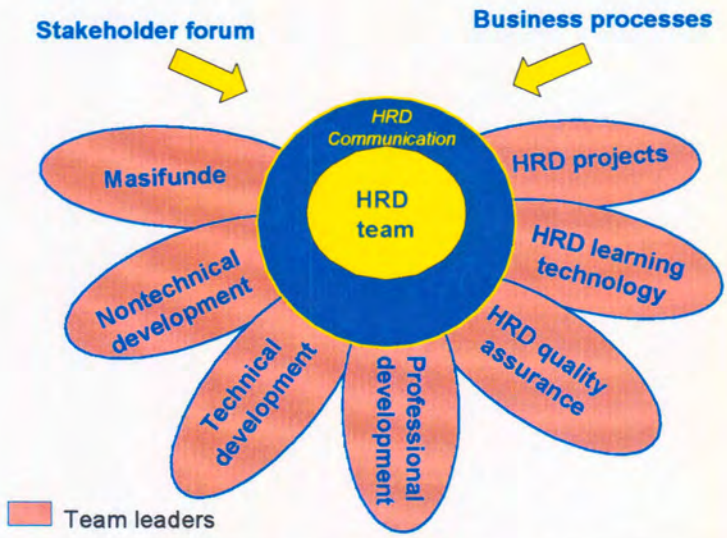


Figure 5.15 – Transmission HRD team

Employees from the stakeholder forums and business processes (Figure 5.15) were invited to participate in the HRD process model. Relevant team leaders and skills were identified and meaningful influence and participation refined the main focus areas. Strategic, operational and project responsibilities were assigned to the relevant team leaders.

It was found that once the Transmission HRD transformation had been put into full motion, the revisiting of the strategic and operational intent reflected a certain amount of discomfort among the key stakeholders. The most important reflection on the HRD process was a feeling of isolation and insufficient involvement on the part of the line functions. The HRD team composition was accordingly changed to address the strategic participation of the core business functions. An HRD strategic team, later called the Transmission Council of Learning, was established and was chaired by the Transmission Executive Director. The HRD strategic team (Transmission Council of Learning) consisted of the following persons (Figure 5.16):

- Representatives from the four business groupings
- Representatives from the four resource groupings
- Representatives from the Eskom Council of Learning
- External representatives when required

The training needs identified by the business and resource groupings have been tabled and financial and manpower resources allocated for the various training interventions. The Transmission Council of Learning was responsible for the delivery of training interventions.

Figure 5.16 – HRD strategic team

The HRD Custodian was *ex officio* a representative on the strategic team (Figure 5.16) and was accountable for the educational correctness of the interventions planned by the Transmission Council of Learning. Project team leaders were identified and empowered by the council to proceed with identified projects.

5.8.3.2 A and B band project report (Appendices A, B, C and D)

The A and B band project was initiated to accommodate the development of the A and B band employees in Eskom. The final report included the following:

- Initiation report
- Definition report
- Conceptual framework
- ABET summary audit report

The initiation report identified the parameters defining the extent of the development to be provided for A and B band employees. The definition report provided detailed and specific indicators and actions in relation to the development and implementation of this initiative. The conceptual framework provides education and an educational approach for the inexperienced ETD practitioners. The ABET summary audit report provided a consolidated report on the:

- Eskom audit report;
- external ABET survey; and
- ABET service provider evaluation.

The A and B band project report was a comprehensive report on the interventions currently in use and recommendations to improve and enhance the expected outputs. The A and B band report included the following aspects (Eskom, 1998a):

- The project initiation report demarcated the boundaries for the project and defined the necessary management support
- A conceptual framework for training and development and the integration of the remaining A and B bands in Eskom was provided
- The project definition report provided details on interaction and the way in which the project should be managed and implemented
- The ABET audit reflected on the current status of ABET and made recommendations on how to address the problem areas

5.8.3.3 Practitioner development

A human resources practitioner course was developed and presented within Eskom to sensitise the ETD practitioners to the changing legislation and

transformation in South Africa and in Eskom. Various target groups were identified and the course presented to them.

The practitioner development went through a modification phase and specific target groups were identified for presentations. These included:

- Senior and top management
- Middle management
- First line supervisors
- ETD practitioners
- Employees

The senior and top management with time constraints were given an overview that ranged between 30 minutes and one hour. The more involved middle managers attended a two-day workshop and the ETD practitioners completed a one-week course on the development. The following aspects were addressed in this course (Figure 5.17):

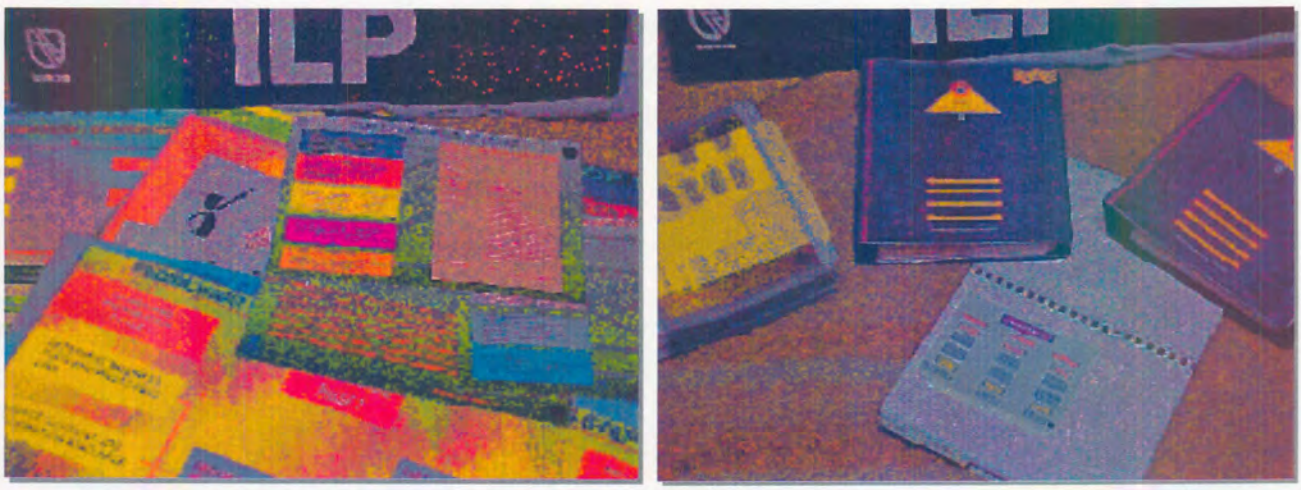


Figure 5.17 – Content of the ETD practitioners toolkit

- Introduction to and roadmap for the practitioner's guide
- Preparation for scheduling and facilitation and a framework for implementing the new requirements

- Workshops on work profiles and unit standards
- Application of the new requirements in human resources practices
- Quality assurance
- Accreditation

The HR/ETD practitioners who completed the course received a toolkit (Figure 5.17) with the necessary reading material, transparencies and posters to equip them to present the transformation changes locally in their own environments.

5.8.3.4 Implementation of the Skills Development Act

A task group was established to address Eskom's alignment with the Skills Development Act. Various team leaders and sub-project leaders were identified and appointed to transform and align Eskom with the legal requirements and implementation of the skills levy payable in April 2000.

Eskom Corporate HRD established four working groups to address the implementation of the Skills Development Act in Eskom. This included the payment of the levy to SAQA and the submission of a skills plan. The ETD practitioner roles were released in October 1999, in an unedited, first draft format for comment. The formulation of a total career path for an HRD practitioner in line with the NQF requirements was still in the development phase.

5.8.4 Learning interventions findings

The development of learning interventions eventuated in consideration of the following:

- A macro model development process
- A micro model development process

- The purpose of the learning interventions
- The foundation and fundamentals of the learning processes
- The impact and focus of the learning interventions

5.8.4.1 Macro model development

The macro model approach converged on an integration of the national and organisational objectives and goals, controlled by primary and secondary control mechanisms. In this approach the employee proceeded through:

- an input process;
- a micro development process; and
- an output process.

5.8.4.2 Micro model and process

The micro model process accommodated the employee and the development of the learning systems through the following phases:

- Analysis
- Design
- Development
- Implementation
- Evaluation

This provided the learning interventions with the required consistency and consequent development and achievement.

5.8.4.3 The purpose of the learning interventions

It was found that the purpose of the learning interventions provided the framework for the development of the learning interventions and included the following:

- Alignment of the learning environment
- Unit standards approach
- Achievable credits
- Competency-based assessment

Learning interventions that were designed and developed used this approach for the delivery of the training and development.

5.8.4.4 The foundation and fundamentals of the learning processes

The foundations of the learning processes build on skills development from the following approach:

- Outcomes-based
- Unit standards
- Roles
- Work profiles

5.8.4.5 The impact and focus of the learning interventions

The focus of the learning interventions was the:

- generic;
- activity; and
- performance

development of the employee and learner supported by the sub-processes responsible for the delivery of the learning interventions. One of the features of this development was the realisation of the essential roles played by the coaches and mentors (individual and group learning facilitators) in the development of the employees and the impact this has on organisational performance.

5.9 SUMMARY

Chapter 5 has described in detail the actions and findings over the duration of the five-year research project undertaken to investigate, design, develop and implement interventions to the benefit of the employees. The report specifies the integration between the four focus areas and includes the data collection methods, instruments used and action research findings of interventions implemented in the various areas. The most important findings obtained during the development of this experiential learning process include the following:

- Learning experiences encountered by the ETD practitioners are related to the way in which participants dominate the process development positively or negatively.
- There is a notable gap between delivery of the theory and practical implementation of the process in the workplace, which is related to the experience/inexperience of the ETD practitioners involved.
- The gap between skills, practices and current theories and focus/lack of focus regarding educational, training and development understanding.
- The eagerness and expectations of the learners with regard to participating in their own development.
- The lack of delivery and implementation of the process in certain areas.

- The relative ignorance concerning the underlying principles and philosophy of education, training and development practices on the part of some of the ETD practitioners.
- The great value of personal interaction with other ETD practitioners in helping to reveal researchers' own lack of clarity and understanding of the philosophy of education, training and development in the workplace.

Chapter 6 concludes this research project report with a summary, conclusion and recommendations for further research.

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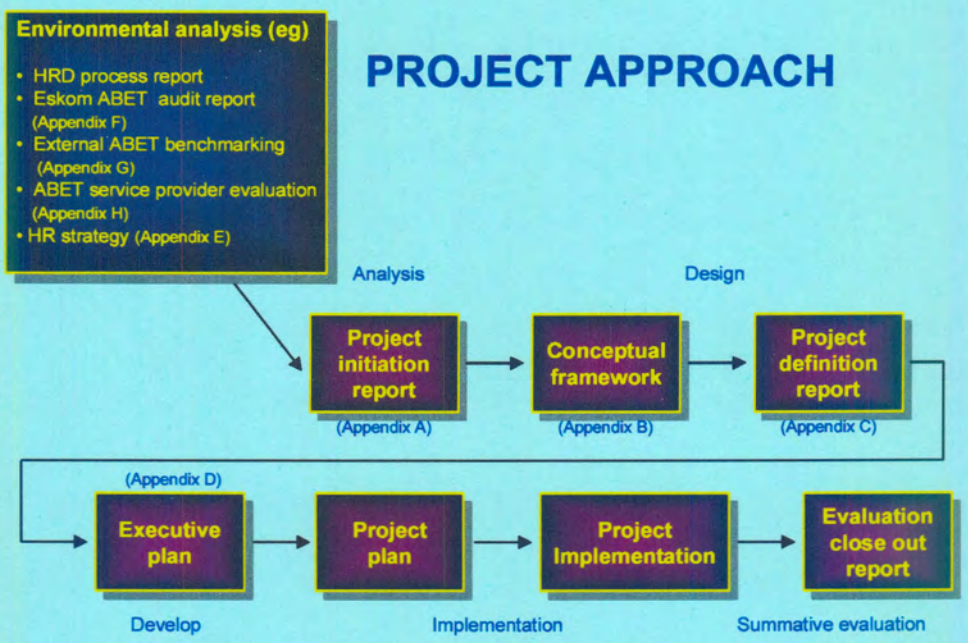
Chapter 6
Conclusions and recommendations



An experiential learning process for the advancement of previously disadvantaged employees in an industrial context – W.J. Cilliers

6 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Those who are slower never get the opportunity to truly catch up, because their record of earlier mistakes cannot be erased (Spady, 1994)

6.1 SUMMARY

Dissatisfaction with the rather narrow focus on education, training and development that characterised the earliest manifestations of curriculum development in this research project, along with the realisation that the content and manner of the approach to training and development were superficial and insufficiently grounded, forced the researcher to analyse and design a new approach to developing an experiential learning process suitable for use by an organisation. With the support of an appropriate educational philosophy, he guided the research project to create a training and development experience that is holistic, respectful of difference, and inspirational. The set of frameworks and structures created moves the processes towards that more holistic character emphasised by a variety of educators such as Rogers (1969), Reimer (1971), Friere (1976), Heron (1977) and Stringer (1996) and makes it responsive to any conceptual concerns that might be noted.

The main research question was formulated as follows:

How can national and organisational alignment, learner development, practitioner development, and learning processes and systems be integrated into an experiential learning process for the design of learning interventions?

This question can be answered on the basis of the answers to the subsidiary research questions (Table 6.1):

Focus area	Subsidiary research questions
National and organisational alignment	• How *closely* is the learning environment aligned with the national and organisational policy requirements?
Learner development	• How *efficient* is the delivery of training interventions?
Practitioner development	• How does practitioner development influence the *quality* of *learning*?
Learning processes and systems	• How *can* the learning processes and systems assist in the advancement of employees?

Table 6.1 – Subsidiary research questions

6.2 NATIONAL AND ORGANISATIONAL ALIGNMENT

How *closely* is the learning environment aligned with the national and organisational policy requirements?

The requirement for national and organisational alignment imparted a sense of urgency to human resources practitioners regarding the way training and development is offered by various groups in organisations and industry. Complying with this requirement called for a fundamental culture change in the deepest sense, not only in the organisations, but also at a national level.

It foreshadowed something of a revolution in organisational behaviour and the delivery of learning interventions.

The major stakeholders have done a great deal of groundwork. However, no matter how radical or how uninvolved some of the educational and training environments may seem to be, they need to become aligned and get their house in order or they will have to pay the relevant levy without any rebate. In addition, the education system in South Africa is ill-equipped and misaligned to address the educational, training and development demands satisfactorily and to the benefit of the employees.

The 1998 *Green Paper on Further Education and Training* (South Africa, 1998a), the *Skills Development Act* (South Africa, 1998b) and the *SAQA Act* (South Africa, 1995a) were promulgated to address the alignment requirements in South Africa. However, considerable effort and participation on the part of industry are needed to make the system work effectively.

6.2.1 Eskom recognises the external forces at national and external organisational level

Eskom as a parastatal should play a leading role in directing the national alignment, without patronising smaller organisations that do not have the resources available to compete at a higher level.

6.2.2 Eskom participates at a strategic level

The influence of Eskom at a strategic level provides valuable work-related experience and groundwork development. However, transforming the strategic intent into an operational and viable initiative will require more negotiation with and participation by fellow members of the same classified fields of learning in order to give effect to the legislation.

6.2.3 Eskom initiated various internal initiatives to align the organisation with the legal requirements

The large size of Eskom as an organisation causes various problems in the Groups and smaller Business Units. This calls for improved communications and information-sharing processes to inform employees at all levels.

6.2.4 Specific alignment initiatives were implemented by Eskom to address the generic competency models

Generic profiles were developed by the participating organisations, for example for electricians. However, the gap between this high-level profile and its interpretation by the different organisations is a cause for concern. Furthermore, the interpretation of the profiles in an organisation such as Eskom resulted in many more disparities at this level and even lower levels, as well as in relation to the assessment applied and recognition awarded by the ETD practitioners.

Although Eskom's learning environment has been brought very closely into line with national, organisational and policy requirements, a definite model, framework or set of guidelines is required as a guide for organisations. This must be developed, however, without jeopardising the organisations' culture and objectives or being too prescriptive and giving the employers no leeway for accommodating their own initiatives and needs.

6.3 LEARNER DEVELOPMENT

How *efficient* is the delivery of training interventions?

The efficiency of delivery can be considered in two parts:

- The influence and effect of curriculum development on the learning interventions
- The influence of learnerships, courses, modules and unit standards on the outcomes of learning interventions

6.3.1 Curriculum development

During the period 1995 to 1998 the researcher designed and developed various curricula and training modules, many of which were accredited by formal institutions. A multitude of problems and dilemmas concerning curriculum development were encountered during this time.

The problems and difficulties originated in the design, development and implementation of the experiential learning programmes and the practitioner's first-hand experience of the learning interventions. No pre-set models or exemplars were available for the programmes that were initially delivered by the ETD practitioners. Specific problems related to the following:

- The production of appropriately assessed assignments to examine work-related, outcomes-based practices and the related knowledge and understanding.
- Determining an appropriate educational, training and development ideology and philosophy. Is the organisation in the education and training business? What are the nature and the aims of the

business? How can these philosophies be integrated into a learning process?

- Identifying the nature of the knowledge, skills and attitudes and of the understanding that needs to be included in the content of the programmes for teaching purposes.
- Managing the needs, interests and expectations of the participants in the experiential learning programme.

It became evident from the research that there is a clear distinction between curriculum design and curriculum development. The *Living Webster Encyclopaedic Dictionary* (1975: 271-274) defines the two terms as elucidated in Table 6.2:

Curriculum design	*Curriculum development*
Curriculum design implies a deliberate effort to establish direction: "An outline, sketch, or plan, as of a work of art, an edifice, or a machine, to be executed or constructed" (Webster, 1975: 271).	Curriculum development denotes gradual evolution and growth. The dictionary definition of development makes this meaning explicit: "The art or process of developing, unfolding, the unravelling of a plot, a gradual growth or advancement through progressive changes" (Webster, 1995: 274).

Table 6.2 – Difference between curriculum design and development

The curricula used for the learning interventions went through both phases. However, it is debatable whether the distinction was clearly understood and put into practice by the ETD practitioners.

6.3.2 Learnerships, courses, modules and units standards

Learnerships should form part of the organisational goals and objectives and the relationship between the curriculum, courses, unit standards, elements and lesson plans should be integrated into the organisation's education, training and development plans to address and support these organisational strategies. This relationship is one of increasing specificity, with a job curriculum the most general and the lessons the most specific.

To answer the research question, the efficiency of the delivery of training interventions in organisations is in need of long overdue adjustment and re-alignment. Hopefully, the national alignment requirements, legislation and proposed penalties for organisations that do not comply with these requirements will create a greater sense of urgency among those as yet not delivering training effectively (South Africa, 1998a; South Africa, 1998b; South Africa, 1995a). The following points should be noted in relation to the delivery of learnerships and skills programmes:

- The initial attempts to deliver learnerships paved the way for a more structured and controlled approach towards the development of learnerships and skills programmes. However, these programmes were implemented in a controlled environment and need to be extended beyond the boundaries of the organisation.

- In addition, quality assurance, assessment methods and allocation and the recognition of qualifications require urgent attention to ensure that the credibility of the learnerships is maintained.

- Eskom should contribute to the development and socialisation of enlightened, responsible and constructively dedicated employees by

making sure that the composition of the learners progressively reflects the demographic realities of the broader society.

- Eskom should also focus more on the expansion and equity strategy by increasing the participation and success rates of black learners in general. This includes involving African, coloured and female learners in programmes (e.g. engineering) in which they are underrepresented.

6.4 PRACTITIONER DEVELOPMENT

How does practitioner development influence the *quality* of *learning*?

The training needs analysis and recommendations as part of a wider training and development strategy identified the development of ETD practitioners in order to increase professionalism as an urgent issue. Efforts to address the identified needs served as an initiator for the development of a tailor-made course for ETD practitioners to assist with the alignment of current practitioner development and initiatives. The perception of stakeholders' expectations and demands and the need for quality assurance in training and development were identified as key performance indicators.

The brief was to transfer knowledge and understanding regarding national alignment initiatives and the implementation of the Skills Development Act (South Africa, 1998b) to the organisation. The task was not only to develop a curriculum for such a practitioner development programme, but also to satisfy the needs of industry for a quality-assured programme within an organisational environment that was itself structured to support the quality of learning presented by the ETD practitioners on the programme. Learners can become only as good as the ETD practitioners who instruct them. The ABET audit (Eskom, 1998c) provided evidence that the skills and competencies of

the ETD practitioners definitely impact on the quality of the learning interventions (Burke, 1994).

However, the emphasis on the development of the practitioner relates to the nature of the original research problem. Action research has come to play a major role in determining the development requirements in the areas of practitioner development and the successful implementation of advancement programmes.

6.4.1 Practitioner roles, skills and knowledge requirements

The development of the practitioner profile, role, skills and knowledge requirements paved the way for involving employees in the training and development environment as part-time practitioners, with consequent development possibilities for themselves in the human resources development discipline. However, this was only the first step to utilising these employees in a virtual organisational setup and to changing the organisational culture to support these initiatives.

In addition, the development of practitioners and the recognition they receive need to be accommodated in such a way that these employees are able to provide an essential service without the organisational structures being inflated.

6.4.2 Qualifications

The separate and parallel qualifications structures for Eskom ETD practitioners and external service-providers (universities, technikons and colleges) hindered articulation and transfer between organisations and higher educational programmes. The NQF clearly spells out that the programme-based approach to practitioner development should focus on the

enhancement of horizontal and vertical mobility through flexible entry and exit qualifications for ETD practitioners.

It is thus recommended that Eskom adapt these qualifications at the levels of higher education certificates, diplomas and degrees to include intermediate exit qualifications within a multi-year qualification approach.

6.5 LEARNING PROCESSES AND SYSTEMS

How *can* the learning processes and systems assist in the advancement of employees?

The experiential learning process is an outcomes-based model. The competent practitioner is a person who is able to effect certain specific outcomes over an extensive range of knowledge domains and their attendant managerial and leadership situations (Boulding, 1956). To achieve these outcomes, the competent practitioner will separately or simultaneously participate fully or in a part-time capacity in four roles:

- Managing operations (activities)
- Managing finance
- Managing people
- Managing information

Learning interventions were not previously always fair, at times leaving the employee on his/her own with minimal support from the organisation. However, legislation has introduced change in two ways:

- Organisations have a responsibility to create a culture of lifelong learning and to provide the means to achieve this.

- Employees have a responsibility to take ownership of their own development.

The legislation that has been passed has opened the way for employee development in the fullest sense, with the establishment of an organisational learning culture and the creation of learning organisations.

6.5.1 Transformation

The single most important problem in regard to the learning processes and systems is the transformation of the organisation to become a learning organisation by means of organisational learning. The transformation at national level forced Eskom to adapt to these requirements. In addition, the cost of transformation and the development of employees to comply with the national requirements places a tremendous financial and manpower burden on the organisation. Proper cost analyses and information on the return on the investment are urgently needed to justify the intent of the learning processes.

6.5.2 Processes and systems

Eskom is using information management processes and systems that are outdated. A needs analysis is currently being carried out to identify an appropriate system that will be able to accommodate the organisation's needs. However, the systems that have been investigated focus mainly on financial management and do not accommodate the human resources needs to the extent hoped for. The identification of a suitable information management system to capture data relating to the learning process and systems and results that is able to interface and work from various user platforms and software is also required at a national level.

6.5.3 Technological changes

The transformation of training and development within Eskom is part of the broader process of Eskom's and South Africa's political, social and economic transition. However, these economic and technological changes will necessarily have an impact on the training and development agenda, reflecting the influence of national and global economic relations. Eskom is confronted with the formidable challenge of ensuring its competitiveness not only in the national arena but also at international level in the face of the rapid changes resulting from new communications and information technologies. Eskom needs to invest more in the learning of these technologies, which place a premium on knowledge and skills, leading to the notion of the 'knowledge society' that transforms the way in which Eskom will work.

6.6 LEARNING INTERVENTIONS

How can national and organisational alignment, learner development, practitioner development, and learning processes and systems be integrated into an experiential learning process for the design of learning interventions?

Experiential learning and action research can been seen as the embodiment of a critical social science and were used as a broad overarching framework guiding the inquiry process. The outlines for a critical training and development and educational science have been mapped by Carr & Kemmis (1994) and the related research methodology has been developed on the basis of Lewin's (1946) early action research formulation. The nature and philosophy of the experiential training and development process as designed and implemented in this research project were identified and reflect the following:

6.6.1 Tensions and dilemmas

There are tensions and dilemmas concerning the different educational ideologies and philosophies embraced by the ETD practitioners. For example, some practitioners refer to human resource development, others to training and development or development and facilitation.

6.6.2 Perception of the programme

The perception of the programme by formal, informal and key stakeholders is important. Although the aim was to develop an experiential learning process with four focus areas, based on an outcomes-based approach, displayed competence in the workplace and recognition for prior learning, which led to a declaration of competence, the emphasis was on the quality of the learning as a first priority and only secondly on the qualification. The perception of some learners and key stakeholders was that the process was qualification-led or based at too high a level for their liking.

6.6.3 Educational philosophies

Some ETD practitioners emphasise the experiential impact expected from the programme. Owing to the different nature of knowledge and understanding in the different modules, they are designed to cover the knowledge and understanding necessary to fill the different roles of the ETD practitioners effectively and learners will diverge and the actual method of delivery will vary accordingly.

Exploring whether the experiential learning process needs a single or multiple philosophy or approach, it was felt that in the light of the wide variety of legal requirements, apparently intractable issues and requests that were on the priority list of government departments, more than one philosophy or approach was often required.

6.6.4 Learning interventions

It is essential to be clear about the nature of each of the focus areas and to communicate the distinct nature and purpose of each focus areas. The fact that so many double meanings and interpretations of the legislative alignment requirements existed was no reason to be unclear or inconsistent in the way training and development interventions were implemented and delivered.

Perception is the process of extracting, organising and interpreting information from the environment. The perception of industry in relation to the learning interventions that were designed and implemented reflects the following:

- Excitement regarding the development potential of the learning interventions and process approach
- A positive approach towards human capital development
- The shortage of qualified and experienced ETD practitioners to implement and maintain such systems
- The impact on financial and manpower resources
- Participation by smaller stakeholders
- The influence of the bigger stakeholders on the processes
- The complexity and the impact of national legislation on the economy of South Africa
- The impact of the First and Third World conditions in South Africa
- The impact of literacy and AIDS problems on the processes

The present education system in South Africa is not skills-based and this impacts negatively on economic growth and social development. The urgent and alarming need for a complete transformation of the education system is of great concern and the outcomes-based education system currently being

introduced could make a meaningful contribution towards the establishment of such learning systems in industry.

6.6.5 Macro and micro processes

The micro model and processes implemented and in use in Eskom are well defined and proved. However, the integration of the micro and macro processes is addressed by the national and organisational alignment interventions, and the idea of alliances and partnerships within and external to Eskom needs much refinement.

In addition, a philosophical and fundamental understanding of these models is still required by employees at different levels. There is a chronic mismatch between the output of the micro process, that of the macro processes and the needs of a modernising and changing organisation. In particular, there is a shortage of highly qualified trained employees, largely as a result of discriminatory practices and the limitation of access to black and female employees. Eskom needs to continue with projects already implemented to advance the development of previously disadvantaged employees in the organisation (e.g. the doubling of trainees project).

6.6.6 Governance

The governance of previous training and development interventions at a process and systems level is characterised by fragmentation, inefficiency and ineffectiveness, with too little co-ordination, few common goals and negligible systems planning. The learning interventions as developed in this research project address most of the issues mentioned. However, the learning systems need to be further supported and implemented to reap the full benefits of the exercise.

6.6.7 Challenges

Eskom encourages the development of a reflective capacity and a willingness to review and renew prevailing ideas, policies and practices based on a commitment to the development of the Eskom employees. However, it is recommended that Eskom continue to contribute to the creation, sharing and evaluation of knowledge and experience gained during this research project.

6.6.8 Learner programmes

Eskom should expand career-orientated programmes at all levels, but should concentrate in particular on short-term development at certificate and diploma level in the engineering and technology programmes.

However, in supporting its employees, Eskom should focus more on distance education and outcomes learning based on the principles of open learning. Eskom has a crucial role to play in meeting the expectations in relation to the expansion of access at national, organisational and learner level, diversification of the body of learners and an enhancement of the quality of learning in the context of the current resource constraints.

6.7 LIMITATIONS OF THE STUDY

6.7.1 National and organisational alignment

The educational backlog indirectly presents many problems in South Africa and manifests itself in different national, organisational and social dimensions. A country's potential in terms of both human and financial resources influences growth and development, and participation at a national level requires enormous financial support. Financial constraints are the reason for many smaller organisations not participating in any national initiatives.

6.7.2 Learner development

The lack of in-service training for employees limits meaningful participation in various processes and initiatives. However, many employees lack the basic education and training that will enable them to undergo such in-service training. This is why organisations and communities need to run programmes that will provide the basic skills required to support the learning processes.

6.7.3 Practitioner development

Throughout the literature study and in parts of the development of this thesis, one is brought to an awareness of an unintentional bypassing of the contextual importance of self-development of the practitioner and sometimes that of the learner. The approach to this study answered this problem in some way. Another facet that corroborated the call for an alternative research approach is that research in this field has up to now unintentionally focused only on the development of learning processes and systems, neglecting the self-development of the practitioner who is needed to implement the learning interventions, make them work and maintain the system.

6.7.4 Learning processes and systems

The enormous variety in training and development processes and individual interpretations thereof creates a lack of participation in constructive discussions by the ETD practitioners. The non-availability or inadequate supply of suitably qualified ETD practitioners is a serious drawback for the learning processes and systems.

6.7.5 Learning interventions

Offering an integrated programme (macro development) rather than programmes in four different and distinct focus areas caused problems for

people with micro development experience. The coherence, compatibility and integration in terms of central values transmitted in the use of combined focus areas had to be weighed up against the fragmented, individual and limited experiences in a single area.

6.8 RECOMMENDATIONS FOR FURTHER STUDY

6.8.1 National and organisational alignment

The researcher recommends a comparative study on the education and training sector and the impact of legislation on education and training within an organisation. The way in which the *Skills Development Act*, the *SAQA Act* and the *Green Paper on Further Education and Training* will be implemented in accordance with the requirements of SAQA and the NQF should be investigated. One of the reasons that the education and training sector is the most relevant focus area to start with is that investment in human capital through the development of learning systems could be regarded as one of the preconditions for national development.

6.8.2 Learner development

Various authors and ETD practitioners who were interviewed reported that the existence of employee and learner support activities could improve employee success and well-being. It is thus recommended that further research investigate the development of a structured employee support system that will provide assistance not only on work-related issues but also in relation to retirement and self-fulfilment needs, especially those of previously disadvantaged employees in rural areas.

6.8.3 Practitioner development

This research has motivated further investigation of the systematic and in some ways crucial limitations on ETD practitioners' decisions in just about every facet of their daily encounters with people, processes and systems. The provision of training for ETD practitioners to enable them to act as change agents for the transformation process could also be further investigated.

6.8.4 Learning processes and systems

It was never the intention of this study to assist in the formulation and development of guidelines for aspiring or practising ETD practitioners. However, practical implications dictated otherwise and it is recommended that the modules developed as part of the research into the need for practitioner development be adapted and integrated into a formal practitioner development curriculum.

The fruitfulness of this development study must be revisited and re-appraised. Equipping the organisation to manage the learning interventions more effectively is only the beginning of becoming a learning organisation. It is recommended that with occasional investigations and re-appraisals, critical feedback from co-researchers be utilised to modify the learning interventions as and when required. This may clarify vague or confusing aspects of the research questions and the learning interventions. The researcher is of the opinion that working with fellow ETD practitioners is particularly useful, as their critical feedback concerning aspects of the development of the learning interventions can be helpful for future learning process development.

6.9 CONCLUSION

The experience gained and the difficulties encountered in conducting a research project of this nature and the exposure to the problems of genuine collaboration in an organisational and educational environment undergoing structural change was a unique experience and very fulfilling.

The formulation of central focus areas in this study was the most marked departure from the tradition of conducting focused and structured research. When working with such a large project involving so many people, a great sense of reliability is sought. During the research project the methodological reflection on one's reliance on fellow ETD practitioners endured and provided a certain built-in reliability. However, this always remains open to debate.

Another aspect that remains disputable and unresolved is the issue of validity. It is clear that no deliberate attempts were made in this study to validate the data. Relying on respected authors and the professionalism of the ETD practitioners involved in this research may justify the validity of the research. Despite the debate on the issue of validity and despite the fact that validity may lie beyond the realm of one single study, the researcher feels compelled to consider the enhancing effects that validation attempts have had on the results.

This study explored the development of an experiential learning process to integrate and support education and training in South Africa and to contribute to comparative development in organisations. The research utilised a systems approach as its fundamental point of departure. The integration of the four focus areas may open a world of learning for the majority of the ETD practitioners involved in the research project. The professionalism displayed by the key stakeholders involved in the process makes the integration of the

focus areas a reality. Properly planned investment in the development of the ETD practitioners paid significant social and developmental dividends.

The framework developed in this study contributed to an understanding of the way in which existing educational and developmental problems can be addressed by implementing the research approach developed. The integration of the focus areas into a single learning process on the basis of traditional educational practices attempts to address current educational development problems in South Africa.