Chapter 1 Need for and development of a support programme for foundation phase teachers

"*I don't just want to research something - I want to make a difference*"

(Zina O'Leary)

Aim of this chapter

Chapter 1 provides 'an expression of intent' for this study that was aimed at developing a continued professional development (CPD) programme for foundation phase teachers to facilitate listening and language (with specific focus on the language of numeracy). The themes discussed in this chapter are presented in Figure 1-1.

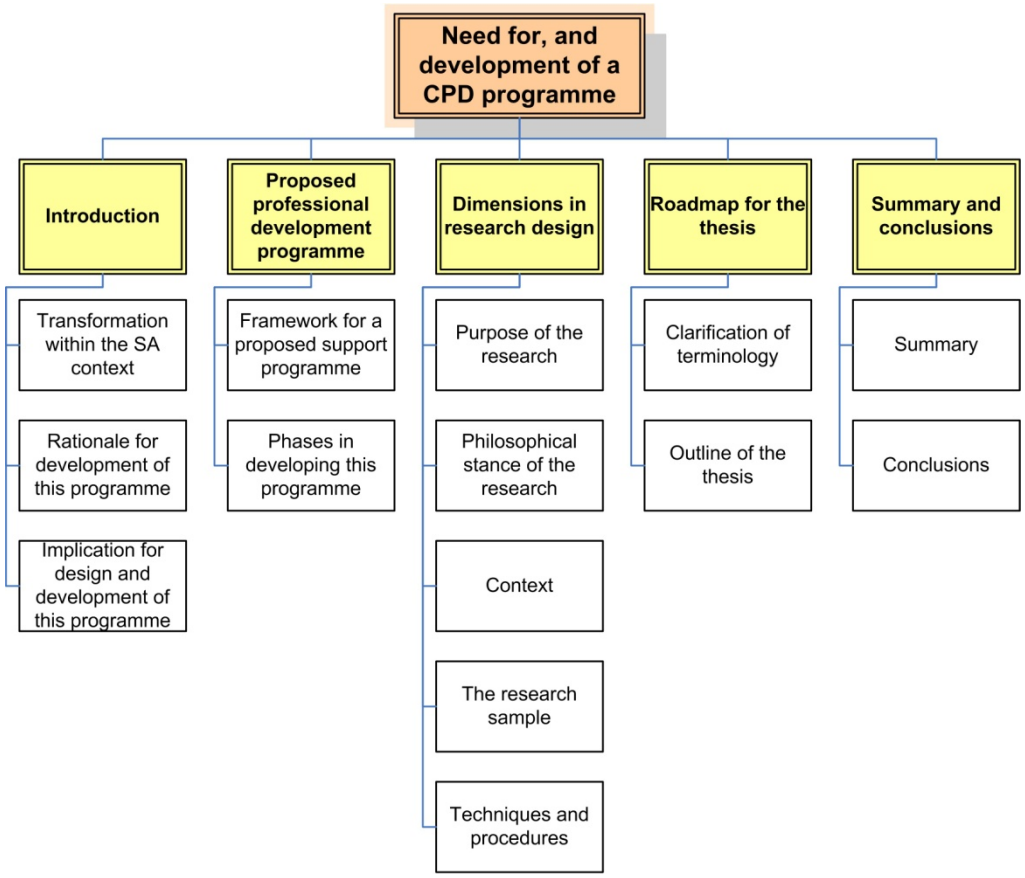

Figure 1-1: Outline of Chapter 1

1.1 Introduction

The literacy and numeracy skills of foundation phase learners in the South African education system currently receive significant attention (Department of Education Gauteng, 2007) and various programmes (Botha, Maree & de Witt, 2005:697; Khan, 2005:1; Naudé, Pretorius & Vandeyar, 2003:293) have been launched in this field. Listening and language skills are the basis for literacy and numeracy (Lerner & Kline, 2006:346): This study therefore developed a continued professional development (CPD) programme to support foundation phase teachers in facilitating these skills, with particular emphasis on the language for numeracy. In order to evaluate the CPD programme the research needs to answer the question: 'what is the value and worth of this specific programme?' Any research in the field of education in South Africa, however, cannot be conducted without taking into consideration the history (Mbigi, 2005:15) that shaped the behaviour of the participants in this research and created the context in which they work.

1.1.1 Transformation within the South African context

Universally, education is a political issue and "the language of politics reflects in the language of education" (Vally & Speen, 1998 in Lawton & Gordon, 1998:119). The pre-1961 history of education in South Africa evolved over a period of 300 years into a separate schooling system for different race groups (Cross & Chrissholm, 1990: 49 cited in Welch, 2003:18). The current education system with its systemic weaknesses has its roots in the previous dispensation's Bantu Education Act of 1953 that created a segregated education system. Since independence in 1961 until 1994, South Africa was under apartheid rule, a period characterized by an ideology of racial segregation and racial inequality (Cross & Chrissholm, 1990:49 in

Ratshitanga, 2007:15; Welch, 2003:18). 'White education'[1] benefited far more in terms of fiscal allocation, which resulted in disparities in all aspects of education (Department of Education, 1995:75). These disparities were most evident in teacher training, resources, and support in schools (African National Congress, 1995:4). The aim of 'Black education' was to prepare learners for the labour market (especially the mining industry) (Welch, 2003:19), as is evident from the following quote:

> *"There is no place for him (the black child) in European society above the level of certain forms of labour….What is the use of teaching a Bantu child mathematics when they cannot use it in practice?"* (H.F. Verwoerd, 1960 as quoted by Ratshitanga, 2007:15).

The consequences of such underutilization of human potential currently manifest in skills shortages (Monyatsi, Steyn & Kamper, 2006:216). Apart from a racially segregated education system, there were two separate components for mainstream and special education, also characterized by racial disparity. This resulted in a fragmented education system with large numbers of learners being excluded from mainstream education (Naicker, 2000:1).

The fragmented and inequitable education system adversely affected the professional training of many teachers. As a result of the struggles against apartheid, the 'culture of resistance' (Bayona, 1999:89) that developed was not conducive to learning and teaching (Thusi, 2006:20). Remnants of such a culture still prevail in some township schools and presently pose challenges to educational reform. Figure 1-2 illustrates the detrimental effects of apartheid on various aspects of education (Department of Education, 1995:6; Jansen, 1998:321; Ratshitanga, 2007:15).

Following the 1994 elections, the new democratic government made all attempts to

[1] It is acknowledged that reference in terms of 'Black education' and 'White education' is highly contested in the current context. These terms are used to explain the racial divide that was created by the apartheid system.

eradicate the devastating effects of the apartheid system. The values of human dignity, the achievement of equality, and the advancement of human rights and freedom inherent in the Constitution (*The Constitution of the Republic of South Africa*, 1996) have challenged each and all to build a humane and caring society.

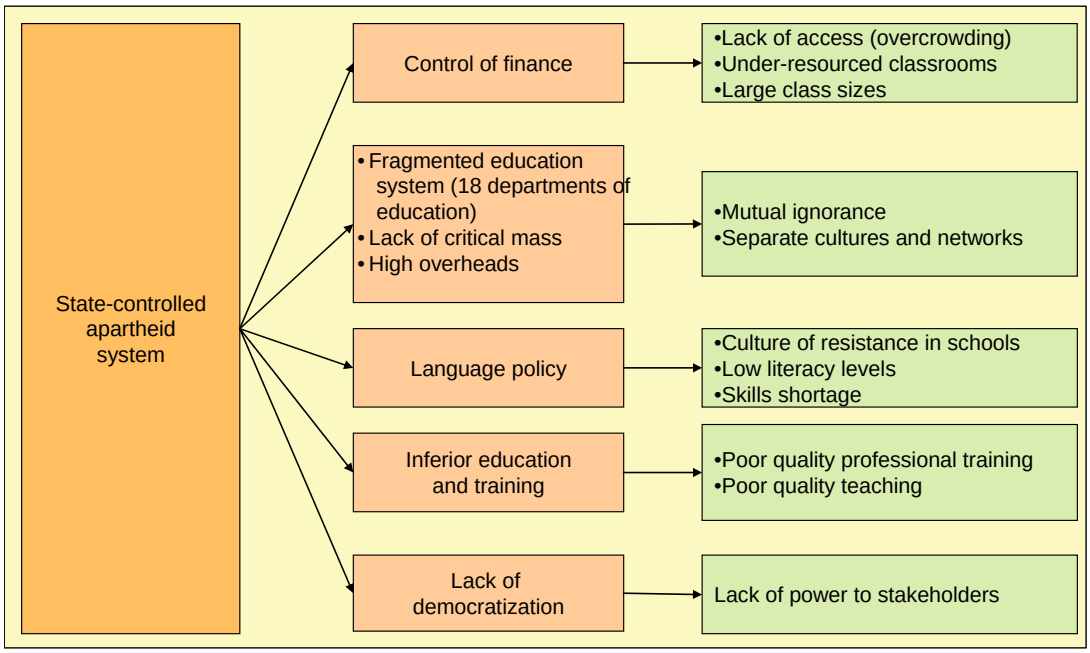

Figure 1-2: The effect of apartheid on education (1960-1994)

For education, this new democracy implicated the end of segregation policies and ensured the right to quality education for all. Political changes led to educational reform that called for a new curriculum.

The new National Curriculum Statement (NCS) had to be applied at all levels of education. The Department of Education stated that "…all learners (ages 0-9) should be provided with life skills and communication skills" (Department of Education, 1995:3). In addition, the inclusive policy based on Education White Papers 5 (Department of Education, 2001a:Section 1.1.1) and 6 (Department of Education, 2001b:Section 1.1.5) demands a paradigm shift from previous models of supporting the child (which is a deficit model) to supporting the teacher in order to prevent and eliminate learning problems in all learners (Ebersohn, 2000:2). Such

education policies therefore identify the role of the speech-language therapist (SLT) working in the educational environment in terms of support.

Support was described in Education White Paper 6 as the provision of training, mentoring, monitoring, and consultation. In a collaborative approach where the SLT is part of a support team, the focus is on the identification and management of barriers to learning at learner, teacher, curriculum, and institutional levels. SLTs are required to support teachers in the areas related to literacy and numeracy (Moodley, Chetty & Pahl, 2005:41), particularly because of their knowledge of language and phonology. There are several reasons for the development of a support programme, which are discussed in the next section.

1.1.2 Rationale for the development of this specific CPD programme

The four main reasons for developing this CPD programme are depicted in Figure 1-3 and are discussed forthwith.

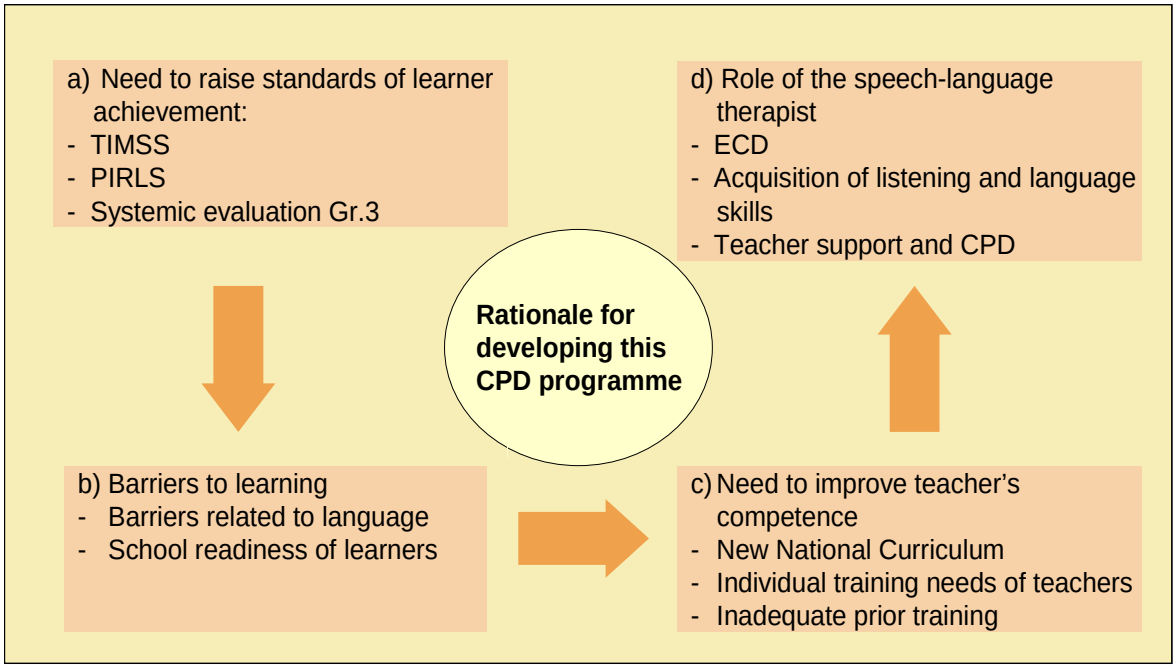

Figure 1-3: Reasons for developing this specific CPD programme

(a) Need to raise standards of learners' achievement

Disturbing statistics recently confirmed South African learners' poor performance in literacy and numeracy, and were reflected in newspaper headlines such as *"Education is failing our children!"* (SAPA, 2006:1). The standards of achievement need to be raised for South Africans to become economically competitive in the global arena (Pandor, 2006). It is therefore important to not only redress the inequities of the past, but to respond to the challenges created by globalization (Weber, 2007:279), which calls for quality education.

International benchmark studies, e.g. the 'Progress in the International Reading Literacy Study' (PIRLS) that was performed in 40 countries in 2006, revealed that 78% of Gr. 5 learners in this country "have not developed the basic reading skills required for learning" (Nel, 2007:1).Results obtained from the Third International Mathematics and Science Study (TIMSS) in 1995, as well as from the follow-up study in 1998 (TIMSS-R), indicated that South African learners performed significantly poorer than learners of any of the other 37 participating countries (including other developing countries such as Morocco and Tunisia) (Howie, 2001:18; 2004:151).

As fewer than 10% of the learners in high school study mathematics on the higher grade, and only 5% of the senior certificate candidates pass the subject, it is clear that South African learners in high school currently struggle with mathematics and that most of the learners fail mathematics in the matriculation examinations (Govender, 2007:4). Locally, the most recent systemic evaluation of Gr. 3 learners showed that the mean scores for literacy was 36%, and for numeracy 35%. The results also suggested that learners who study in an indigenous language lack the necessary language skills for numeracy (Department of Education, 2007:13).

In a local study conducted in the Western Cape (one of the top-performing provinces in South Africa) it was reported that only 15.6% of the learners passed the numeracy test in the assessment of Gr. 6 learners in 2003 (Dugmore in Kassiem, 2004:1). This finding confirmed the results obtained from the Systemic Evaluations by the Department of Education (2002:vii). This phenomenon has a severe impact on human resource development, resulting in a scarcity of skills in certain professions such as engineering, accounting, medicine or professions related to the fields of science and technology (Bernstein, 2007:7).

Schools in previously disadvantaged areas have traditionally produced poor results (HSRC, 2006:3; Rembe, 2005:3). The Institute for Justice and Reconciliation reported that nearly 80% of the schools in South Africa were providing education of such poor quality that they actually constituted barriers to social and economic development (The Shuttleworth Foundation, 2006:2). Such statistics imply that the majority of learners in South Africa are not receiving quality education (South African Human Rights Commission, SAPA, 2006:1), which can be considered a violation of their Constitutional rights.

The low levels of learner achievement have been attributed to teachers' poor conceptual and content knowledge (Department of Education, 2006:3; Van der Sandt & Nieuwoudt, 2005:110), which makes CPD of teachers, particularly in the literacy and numeracy learning areas, a matter of national priority (Chief Directorate: Quality Assurance, 2002:1; Creecy, 2009:3; Department of Education, 2006:20; Department of Education Gauteng, 2007).

(b) Barriers to learning

Several barriers to learning that impact on learning outcomes have been identified. It is a matter of great concern that estimated figures for learners who experience

barriers to learning in South Africa (refer to Figure 1-3) (including HIV/AIDS, poverty, and violence) may be as high as 50% of the school-going population (Pickering *et al.*, 1998:5). In addition, many young learners in South Africa struggle to develop adequate language skills because of an inherent pathology and/or barriers in their learning environment, leading to poor academic progress. Two specific barriers related to this field of study are highlighted below.

(i) Language-related issues

A critical factor affecting education outcomes is language, and includes issues such as language policy as it is applied to the language of learning and teaching (LoLT) in schools, multilingualism, individual cognitive academic language proficiency (CALP), and language practices in schools (Du Plessis, 2005:30; Vermaak, 2006:19). Learners with speech and language problems are at a disadvantage as such problems have been associated with problems in developing literacy (Dockrell & Lindsay, 1998:132). Language is required to develop concepts of learning (Owens, 2001:2), and knowledge of mathematics is gained through language (Howie, 2004:51). Speech and language difficulties have also been linked to difficulties in social behaviour and self esteem (Botting & Conti-Ramsden, 2000:118), as well as emotional and behavioural problems, and potential psychiatric problems later in life (Cohen et al., 1998 in Paradice, Bailey-Wood & Davies, 2007:224). Therefore, insufficient development of language during the early years causes learners to fall behind and eventually drop out, which cannot be afforded by a country where scientific and technological expertise and skills are needed.

An escalating number of learners learn in a language which is not their home language (L1) (Gules, 2005:15). In Gauteng 33% of the learners receive instruction in their second or third language (Chief Directorate: Quality Assurance, 2002:20), implying a need for additional support. Since the new dispensation has come into

power, there has also been a shift in the demographic, cultural, and linguistic composition of classrooms. Teachers now have to deal with diversity and language issues (Department of Education, 2006:3), which they had not necessarily been trained to do. In addition, in many classrooms the home language (L1) of the teacher is not the same as the L1 of the learners, and therefore such learners have only home support of their mother tongue causing them to lag behind in the acquisition of literacy (Du Plessis, 2005:39; O'Connor & Geiger, 2009:254). The LoLT in classrooms is a contentious issue as it has an effect on the quality of learning and teaching.

It is therefore important to address the language needs of learners, and in the education environment this calls for a collaborative approach where SLTs and teachers work together to facilitate learning. SLTs are expected to provide the necessary support to teachers by providing them with suitable workshops to facilitate language and literacy related skills.

(ii) School readiness and the need for ECD

In South Africa, 40% of all children come from extremely impoverished backgrounds with limited access to learner support materials in their homes, and where low literacy levels prevail (Howie, 2007, as quoted by Bateman, 2007b:1; Botha *et al.*, 2005:697; Howie, 2004:160). Such learners may not receive the stimulation and learning experiences that promote school readiness (Chief Directorate: Quality Assurance, 2002:15; Department of Education, 1995:6; Winkler, 1998:55). Learners from low socio-economic schools (SES) may, therefore, need more support than their counterparts from more affluent communities. Teachers therefore need to radically change their attempts to facilitate literacy and numeracy, particularly in the early grades (Dawber & Jordaan, 1999:2).

Learners are admitted to school at an increasingly younger age when a significant

number of them are not ready to benefit from formal education and learning (Winkler, 1998:55). Reddy (as quoted by Govender, 2007:4) stated that "…the key for government's increase in the quality of our education is to start interventions at the foundation phase"[2]. If teachers do not help learners to overcome disparities in early learning experiences, it may lead to learning difficulties in the first two or three years at school. These learners are then at risk of developing more serious learning problems later in life, with subsequent detrimental effects (Winkler, 1998:55). However, if learners can be supported to overcome their developmental delays in the foundation phase, future learning problems may be prevented, which emphasizes the importance of ECD (Mantzicopoulos, 2004:51).

Research suggests that reinforcing numeracy skills in the foundation phase will in the long term benefit the learning of mathematics (Young-Loveridge, 2004:82). As mathematics has a significant effect on personal income later in life (Dougherty, 2003:98), the strengthening of numeracy skills in the foundation phase holds a potential advantage for the national economy (Hazelhurst, 2008:18). The long-term benefits of ECD only become evident during later years when learners achieve academic success and eventually gain financial independence (Chief Directorate: Quality Assurance, 2002:25; Department of Education, 2001a:3; Rosetti, 2001:281).

(c) Need to improve teachers' competence

With reference to Figure 1-3 there are three reasons for improving teachers' competence, namely inadequate prior training, a new curriculum, and the individual needs of teachers to become competent.

(i) New National Curriculum Statement

Teachers currently have to adapt to a new national curriculum statement (NCS) that

[2] Dr. Vijay Reddy was author of the South African report of TIMSS 2003, and acting executive director of the education, science and skills development research programme at the Human Sciences Research Council.

is based on an outcomes-based education (OBE) approach (Department of Education, 1997:202). Many teachers, especially those in black townships and other previously disadvantaged areas, find it difficult to implement the NCS (Motseke, 2005:119; Taylor & Vinjevold, 1999c:43) as they are not necessarily equipped to deal with these changes (Gouws & Dicker, 2006:417; Maree, 2006 as quoted by Nthite, 2006:10). Educational changes have necessitated the need for high quality staff development and training.

The new curriculum gives teachers much more autonomy in their lesson planning and curriculum development and therefore provides less structure of what to teach and how to teach than the previous didactic approach, which makes many teachers feel uncertain and ill-equipped to teach (Maree & Fraser, 2004:706; SAPA, 2006:1). Such feelings are further exacerbated by the many challenges brought about by the legacy of apartheid (e.g. teaching large classes, being undertrained and underqualified, as well as coping with insufficient facilities and resources) (refer to Figure 1-2), which raise concerns about teacher morale.

Low morale has been attributed to inadequate training and support (The Herold, 29 December 2004:3), although teacher unions were of the opinion that such a situation can be reversed by the provision of additional training and support. It is important to counteract low morale by providing additional support as the general attitude of teachers may have a significant impact on learners' performance (Department of Education, 2001b:48). Teachers are therefore encouraged to attend CPD activities (e.g. workshops) whenever possible (Ebersohn, 2000:2).

(ii) Training needs of teachers

It is estimated that 50% of mathematics teachers need to be included in in-service training programmes because of "the lack of subject knowledge" (Van der Sandt & Nieuwoudt, 2005:109). International literature (Girolametto *et al.*, 2007:72, 268)

indicates that many teachers have little or no special training to effectively teach learners who experience (or who are at risk of developing) barriers to learning. The poor performance in mathematics and physical science of high school learners in District 3 of the Tshwane North Region (Mji & Makgato, 2006:253) was, among others, directly attributed to teaching strategies and teachers' limited content knowledge, which reflect poorly on the professional training of these teachers.

Research in South Africa has shown that many teachers require CPD to acquire both subject-content knowledge and pedagogical content knowledge (Julie, 1998 in Lebeta, 2006:23; Taylor & Vinjevold, 1999b:14, 227). By increasing teachers' content knowledge, it is possible to create a change to classroom practices (Ormrod & Cole, 1996:5)

Sufficient subject knowledge builds confidence in teachers, but is of limited value without pedagogic knowledge (Barlex, 2007:154). The combination of these two knowledge bases enables teachers to fulfil their roles as teachers as required by the National Norms and Standards for Teachers (Department of Education, 2000). The "…upgrading and scaffolding of teachers' conceptual knowledge and skills" (Taylor & Vinjevold, 1999c:160) are critical in the determination of competence and professionalism (Adler, Slonimsky & Reed, 2003b:135), and therefore also in the improvement of learners' performance. In an effort to improve learners' performance Creecy (2009:7), the MEC of the Gauteng Department of Education, has recently announced that 73% of the annual education budget will be spent on teachers. This expenditure will include the development and support of teachers in ECD and foundation phase.

(iii) Inadequate prior training

The National Teacher Education Audit in 1995 (Department of Education, 2006:3) reported that 66% of the teachers are in the 35-50 year old band, and 21% are

younger than 40 years. Therefore, most of the teachers currently in the workforce were trained when professional training at tertiary level was still racially and ethnically segregated (Hindle, 1998:5; Monyatsi *et al.*, 2006:216; Rembe, 2005:109). As mentioned earlier (refer to Section 1.1.1) such training may have been inadequate to equip teachers for the current demands in education (Department of Education, 2006:3).

Many teachers also find themselves teaching the foundation phase without being appropriately and adequately qualified to teach at this level (Department of Education, 2002:35). Reports (Roberts, 2002:3) estimated that 86,000 teachers in public schools in South Africa are underqualified. This number excludes teachers who qualified more than 10 years ago and whose knowledge and skills also need to be updated. Inadequate quality and depth of teachers' knowledge of subject matter has been cited as "…the most important inhibitor of change in education quality measured in student achievement terms" (Taylor & Vinjevold, 1999b:14). These limitations in teacher training have a detrimental effect on learning (Department of Education, 2002:35).

The National Department of Education has prioritized CPD for foundation phase teachers (Bateman, 2007a:2; Department of Education, 2001a:7; Pandor, 2008) because they consider it to be '…the key to education of high quality" (Riley & Roach, 2006:363). The effect of CPD of teachers on learner achievement has been found to be significant, particularly for learners in low-achieving, low-income urban and rural schools (Johnson, Mims-Cox & Doyle-Nichols, 2006:9). There is therefore an urgent need for CPD programmes for teachers (Ebersohn, 2000:2), which this particular programme aimed to meet.

(d) Role of speech-language therapists

The role of speech-language therapists (SLTs) in the education context is two-fold (refer to Figure 1-3): to support learners who need to acquire listening and language skills, and to support teachers who have to facilitate these skills.

(i) Support of learners

Communication is central to the social, emotional, and academic development of young children (Owens, 2001:1). Adequate competence in language and communication skills are essential in education, as both receptive and expressive skills (spoken and written) are the basis for learning and the entire curriculum (Paradice *et al.*, 2007:224). Young children need to acquire listening skills in order to develop language (Bellis, 2002:3) and need to become competent in the use of language to be able to acquire literacy skills. Numeracy is linguistically based (Rothman & Cohen, 1989:133) and therefore the acquisition of language is critical to numeracy development. Children who do not develop adequate listening and language skills during their early years are most likely to experience difficulty in learning to read, write, and calculate at a later stage (Crowe, 2003:16; Department of Education, 2003:1; Winkler, 1998:53). This, in turn, may cause problems such as low self-esteem, social maladjustment, and the inability to sustain themselves financially (Mamum, 2000:10). It is therefore important to prevent academic failure by ensuring that learners acquire listening skills and become competent in language as early as possible.

(ii) Support of foundation phase teachers

Recent research (Girolametto *et al.*, 2007:73) indicated that many teachers lack the knowledge of how to facilitate emergent literacy skills. Botha, Maree and De Wit (2005:706) reported similar findings for numeracy skills, which indicate a need for support in both these learning areas. The importance of such support and

development of teachers in the facilitation of language for numeracy was described by Botha, Maree *et al. (Ibid)* as "…one of the most crucial factors to include in a programme for young learners".

In accordance with the White Paper on Education and Training (Department of Education, 1995:75), speech-language therapists (SLTs) who are trained in the field of language and communication can support teachers in facilitating learning (Naudé, 2005:10). Such support can be provided within a collaborative approach to service delivery in the education context (Du Plessis & Louw, 2008:55; SASLHA ethics and standards committee, 2003:1). SLTs working in education are responsible for CPD activities to support teachers in aspects related to literacy and communication (ASHA, 2001:2), as well as for the provision of developmentally appropriate language enhancement activities and strategies in the classroom curricula (Roth & Baden, 2001:164).

All primary schools in South Africa are currently phasing in the preschool year (Gr. R). As formal qualifications were not required from Gr. R teachers in the past, many who currently teach in the system do not have formal qualifications, but are required to implement the NCS. Riley and Roach (2006:363) singled out CPD of teachers as the key to high quality early childhood development programmes, which has implications for the extension and growth of teachers on a national level (Chief Directorate: Quality Assurance, 2002:; Department of Education, 2006:4). In addition, CPD of teachers also contributes to a school culture and ethos that make teachers feel valued and motivated (Earley & Bubb, 2004:14). The provision of CPD activities may not only update teachers' knowledge but also renew their enthusiasm, thus preventing teachers' burnout.

1.1.3 Implication for design and development of this CPD programme

The current need for CPD programmes for foundation phase teachers provided the rationale for developing this specific CPD programme. In rationalizing the development of such a CPD programme it was deduced that such support would improve teachers' competences (foundational, practical and reflective), which in turn would have a positive effect on learners' achievement. The underlying assumption of this research was that if foundation phase teachers undergo this specific programme ('the product' developed by this study), they would benefit in terms of acquiring knowledge, skills, and confidence that would help them become more competent in facilitating listening, language, and numeracy. If the CPD programme was of sufficient quality it could be used for future in-service training and professional development.

1.2 Proposed professional development programme

A national intervention programme has been launched to develop and enhance the competencies of foundation phase teachers in all schools in the country (Department of Education Gauteng, 2007:19). This consists of various support programmes addressing a range of different topics. This particular study focuses on the development of such a support programme to facilitate listening and language, with specific emphasis on the language for numeracy. A model of teacher support is proposed in this study (refer to Figure 1-4) that provides teachers with content knowledge and skills to facilitate learning (Van der Sandt & Nieuwoudt, 2005:110). This also provides teachers the opportunity to reflect on their practices and thus engenders professional growth.

1.2.1 Framework for a proposed support programme

The proposed programme consisted of a training; practical and mentoring component. The three components illustrated in Figure 1-4 were intended to augment each other in empowering foundation phase teachers to facilitate specific skills in learners. The combination of the three components aimed at improving the three competencies stipulated by the Norms and Standards for Teachers (Department of Education, 2000:2), and are similar to the different kinds of knowledge required for effective teachers. The support provided by the training component (refer to Figure 1-4) was aimed at the acquisition of foundational competence and consisted of three full-day workshops that focused on subject knowledge related to 'why?', 'what?' and 'how?' of facilitating listening and language (with specific emphasis on the language for numeracy) as stipulated in the NCS.

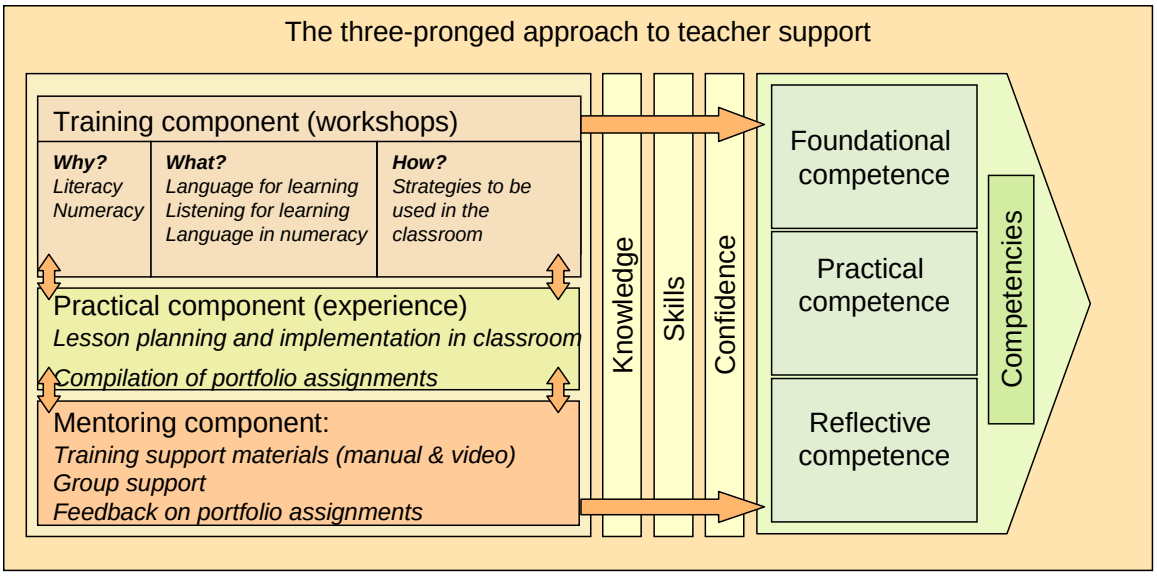

Figure 1-4: A model for a proposed CPD programme for foundation phase teachers

In view of the fact that limited effect can be expected from one-day workshops (Massel and Goertz in Roberts, 2002:23), this model also includes a practical and mentoring component with reflective elements to support the training component (Figure 1-4) (Binstead, 1980:30; Sowden, 2007:305).

The practical component required of participants to implement strategies in the classroom, and was directed at skills acquisition to develop the teachers' practical competence in the facilitation of listening and language. Throughout the process of engagement the teachers were supported by a mentoring component (consisting of portfolio development) that aimed at developing their reflective competence where attitudes and values were at stake. Furthermore, ongoing support provided by the district facilitators at school level enhanced the effect of the training. Collaboration between the speech-language therapists, the district facilitators, as well as the teachers and their schools, contribute to meeting the special educational needs of learners (O'Toole & Kirkpatrick, 2007:325; Paradice *et al.*, 2007:223) and is required of SLTs working in South African educational contexts (Moodley *et al.*, 2005:40), and therefore was an integral part of the entire programme. The development of this CPD programme consisted of various phases that are discussed in the next section.

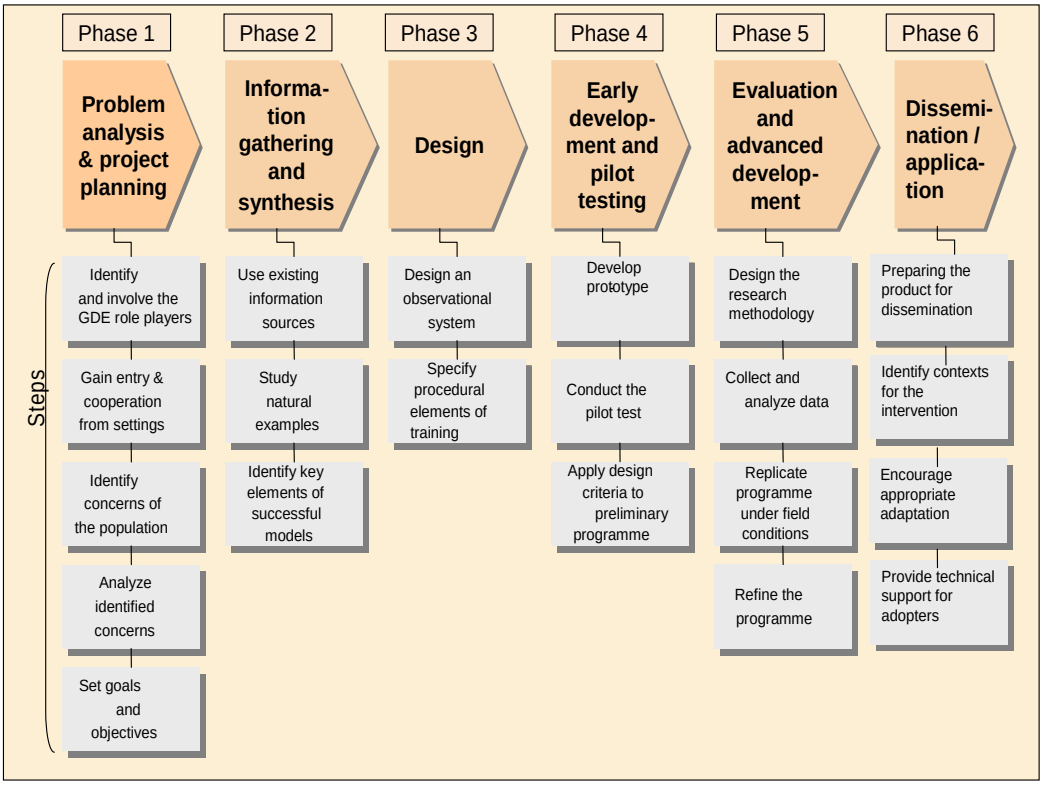

Figure 1-5: Phases in the development of the CPD programme

1.2.2 Phases in developing the professional development programme

The development of this CPD programme was based on a framework provided by Thomas and Rothman (1994:27) as it consisted of various phases (with steps in these phases), and therefore provided valuable guidelines for sequencing the events (refer to Figure 1-5). The methodology of the advanced development and evaluation phase (refer to Figure 1-5) of this programme is presented in the following section that describes the various dimensions included in the research.

1.3 Dimensions in the design of the research

The framework of the research is illustrated in Figure 1-6 and includes a statement of the purpose, the paradigm, the context, and the techniques (Terreblanche & Durrheim, 1999:12).

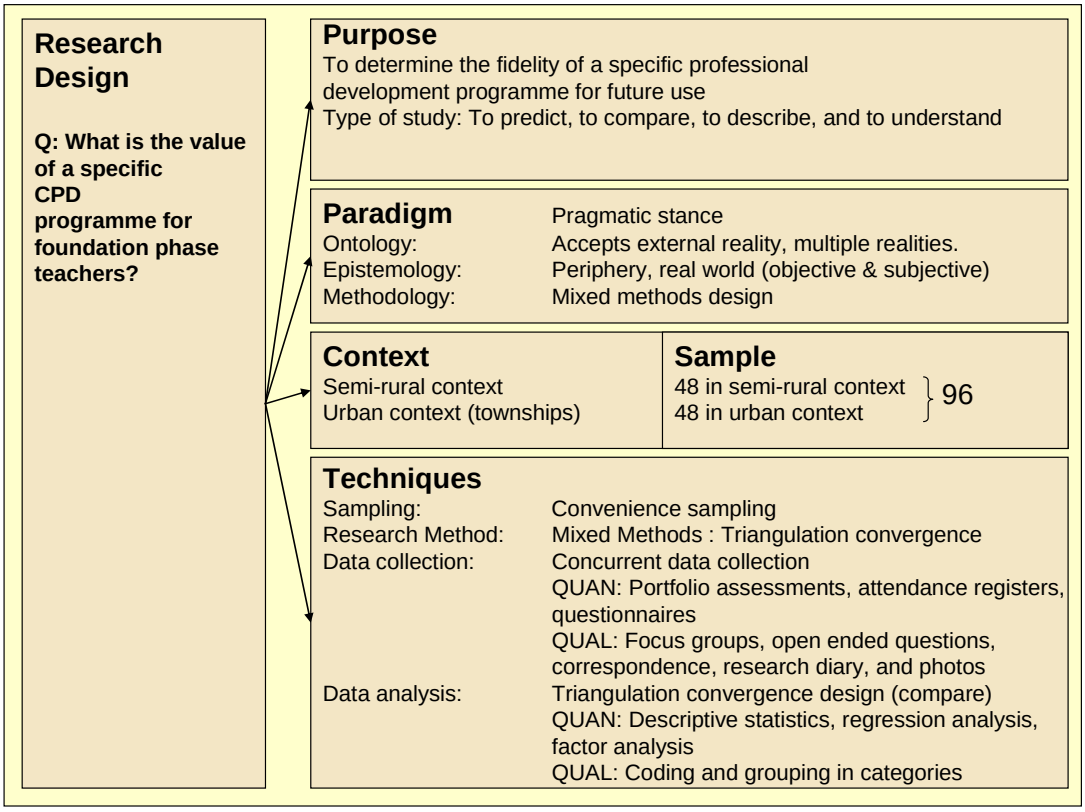

Figure 1-6: A framework of the dimensions in the research design

1.3.1 Purpose of the research

The purpose of the research is described with reference to the three focus areas of the research as presented in Figure 1-7. Whenever a problem is experienced in learners' performance in the classroom (Level 1) the question that arises is: *What is wrong that learners perform poorly?* Several reasons for poor performance have already been cited in the rationale for this research (refer to Section 1.1.2) and appear on Level 1 of Figure 1-7. In an effort to solve the problem on Level 1, a CPD programme was proposed to train the teachers (Level 2). On Level 2 (refer to Figure 1-7) the question posed was: *How effective was the CPD programme?* This referred to how well the training was conducted and how much the trainees gained from it (output). The ultimate value of the programme, however, only became evident once the strategies were implemented in class (Level 3) (refer to Figure 1-7).

The key research question to be answered on Level 3 was: *What was the value of the CPD programme?* This question was answered by evaluating the outcomes of the proposed intervention.

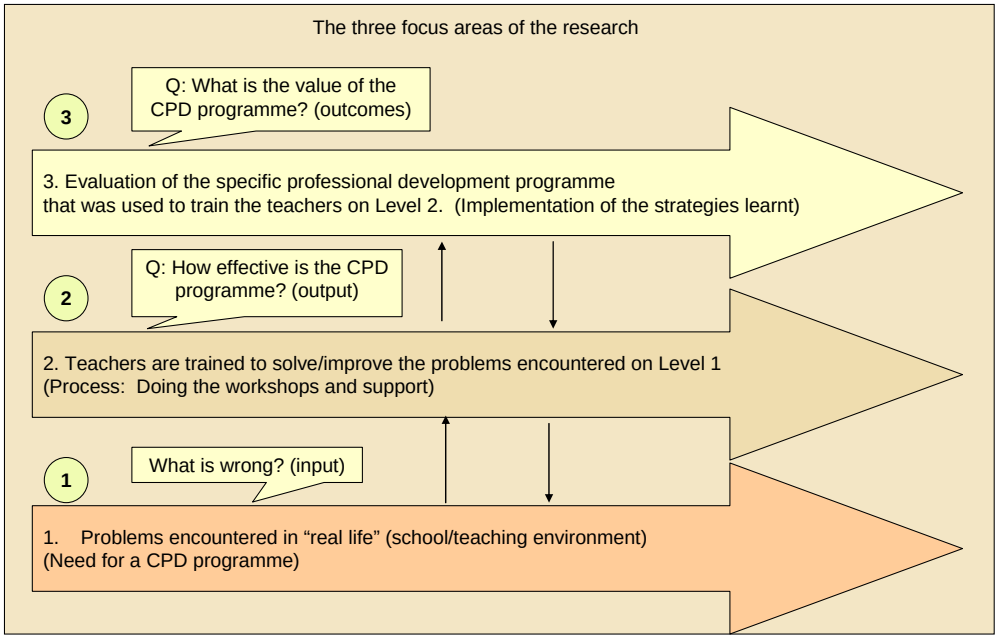

Figure 1-7: Focus of the research

Programme development includes the evaluation thereof as development and evaluation are closely linked and cannot be separated (Potter, 2002:212). The value of this particular support programme was determined by addressing the effectiveness of the three components (training, practical, and mentoring components, which were the process and output) as well as the effect (outcomes) of the support that was provided. The 'effectiveness of this programme' was described in terms of its usefulness and helpfulness to the teachers (Greene, 1994:531), whereas the 'effect of the programme' was related to its consequences or outcomes and was determined by questions such as *'what was brought about?'* or *'what was achieved?'* The term 'effect of the programme' refers to a change that was brought about by an action or the result of an action. In this case the 'action' was the implementation of a CPD programme (Hawkins, 1994:166). Once the focus of the research has been explained, the next step for the research is to take a specific philosophical stance or be placed within an epistemological base.

1.3.2 Philosophical stance of the research

The evaluation of any programme is a complex, multilayered undertaking with many questions that need to be answered. Information needs to be obtained from several sources, which requires multiple methods representing several paradigms. The value of this support programme was determined by three frames of reference of the research (refer to Figure 1-8) as described by Mouton (2006:141).

In the quantitative strand the changes in the participants' knowledge and skills were measured. Simultaneously, attendance and cost-effectiveness were calculated to describe the output and outcomes of the programme, which grounded the research in a positivist tradition. The separateness of these three frames of references is mainly an analytical distinction to clarify the various modes of reflection on the

scientific process, which is inherent to meta-science. These frames of reference are interdependent and therefore should be regarded as an integrated whole.

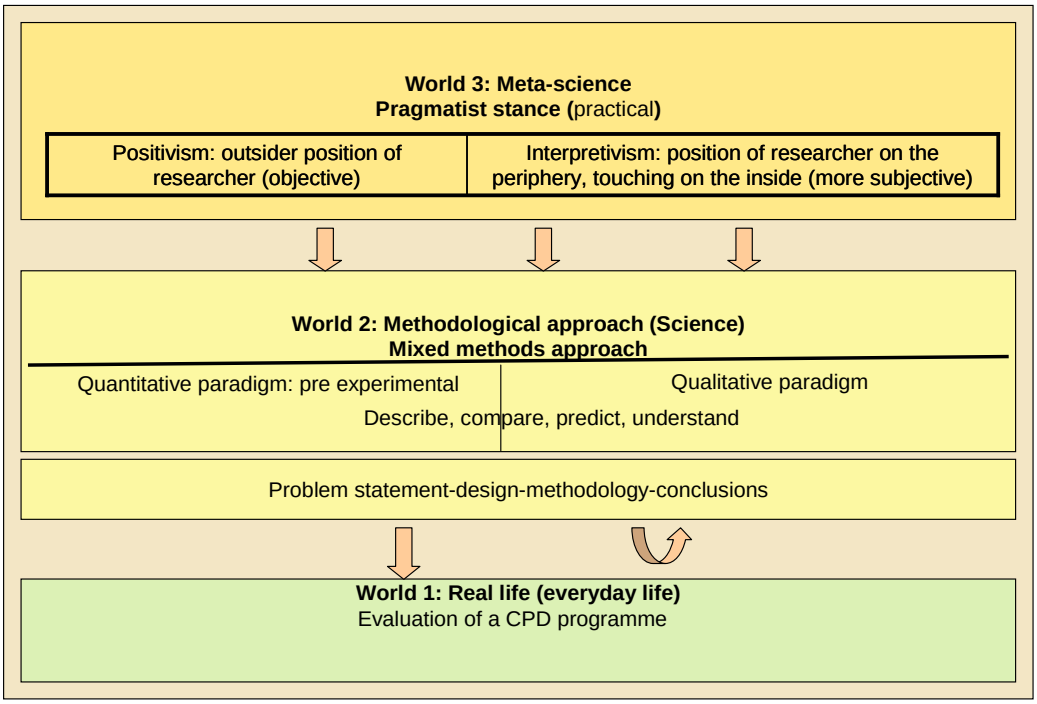

Figure 1-8: The three frames of reference of the research

The multiplicity of the study grounded it in a pragmatic philosophy (Maxcy, 2003:51) as it linked theory and praxis. A practical approach allowed the researcher to study that which was of interest and of value to her, to do so in a way that was deemed appropriate, and to use the results to bring about positive consequences within her own value system (Tashakkori & Teddlie, 1998:30).

When research is conducted from a practical perspective the problem usually is more important than the methods (Tashakkori & Teddlie, 1998:29) and therefore this research was guided by the various research questions. Such a pragmatic stance advocated the use of any philosophical and/or methodological approach that could address the particular research problem (Denzin & Lincoln, 2005c:5; Tashakkori & Teddlie, 1998 in Rocco *et al.*, 2003:21; Tashakkori & Teddlie, 2003b:x). This research therefore supported a compatibility thesis where quantitative and qualitative methods were considered compatible and potentially useful (Denzin & Lincoln,

2005c:7).t is, however, also necessary to understand the context of the participants' work, and how the programme affected the outcomes. This understanding is based on an interpretive approach and is related to the qualitative strand.

As a philosophy, pragmatism stems from works developed by Peirce, James, Mead, and Dewy (Cherryholmes, 1992:14; Habernas, 1972:115). In such a philosophy knowledge claims are consequence oriented, arise from actions, are problem centred, and pluralistic (Cherryholmes, 1992:13; Creswell, 2003:12). As pragmatists generally believe that the world view has little prominence because there is no clear relationship between philosophical beliefs and practice (Niglas, 1999, in Greene & Caracelli, 2003:105), this researcher preferred to take a positioning stance to the research rather than assign it to any specific paradigm (Rocco *et al.*, 2003:21). Nonetheless, it is believed that all research is steered by 'crude mental models' (Greene & Caracelli, 2003:95) and therefore Figure 1-9 depicts a 'basic set of beliefs and assumptions' (Creswell, 1998:74; Mouton, 2006:141) as lenses through which the social world of this study was viewed.

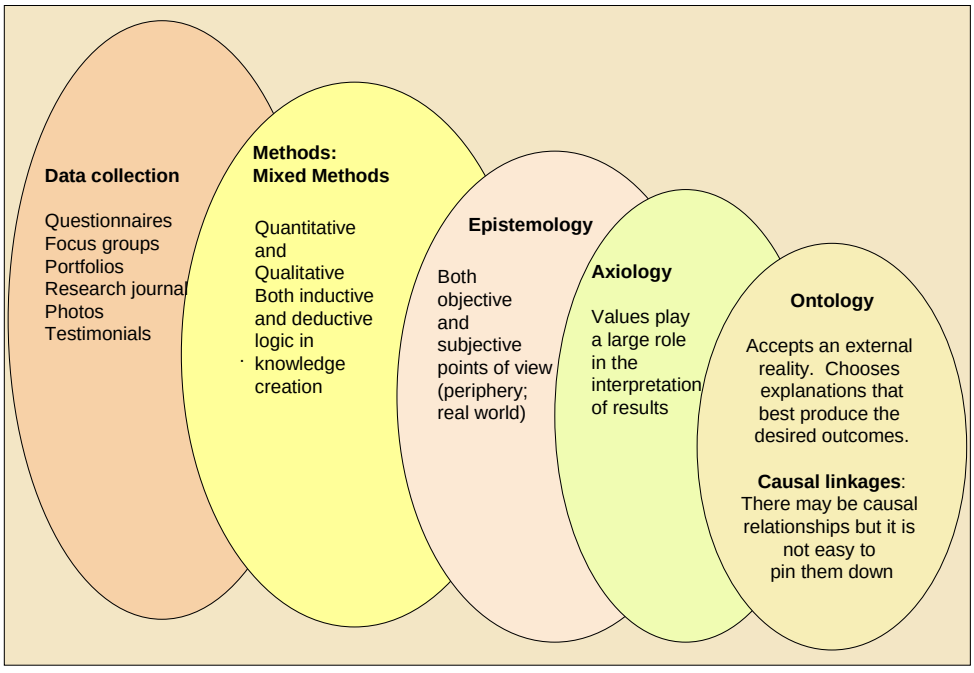

Figure 1-9: The various lenses that steered the research

With reference to Figure 1-9 the view through an *ontological lens* (Creswell, 1994:74) in this study was one where the existence of an external reality was accepted. It was also accepted that 'truth' cannot be proved without doubt. In this case, for example, many factors could impact on the outcomes which made it difficult to determine causal linkages. In terms of causality, it was assumed that no single choice of an explanation was better than another, but rather that "…one specific approach was better than another at producing anticipated or desired outcomes" (Cherryholmes, 1992:14).

When looking through an *axiological lens* (Creswell, 1994:74) (refer to Figure 1-9) the results were interpreted from a values perspective. This research was congruent with the researcher's own value system, and included the variables and units of analysis that were most appropriate for finding the answers to the research questions. The researcher deemed the evaluation of this CPD programme as an interactive process that required the acknowledgement of her own personal history, biography, gender, social class, race and ethnicity in relation to those of the participants and other role players.

The *epistemological lens* (Creswell, 1994:74) in Figure 1-9 provided a view on the purpose of the study, which in this case was two-fold: It was partly technical in nature, but the study also had a practical interest that sought to understand. Because of the multiplicity of programme evaluation (which is to describe, compare, and predict) the research called for the use of multiple approaches to understand the problem (Creswell, 2003:11; Tashakkori & Teddlie, 1998:21). The study was conducted in a real-life context that rendered the choice of practice pragmatic, strategic, self-reflexive, and dependent on the context (Denzin & Lincoln, 2005c:5). In this case knowledge was socially constructed and relied on multiple perspectives and therefore was of an interpretative nature (Habernas, 1972:313-315).

With reference to Figure 1-9 the *methodological lens* (Creswell, 1994:74) provided the pragmatist view, which is a paradigm that philosophically embrace the use of the mixed methods approach, as neither quantitative nor qualitative methods could conclusively address the various research questions (Tashakkori & Teddlie, 2003b:x). Such a methodology demanded the use of both inductive and deductive forms of reasoning to develop an understanding of the data (Rallis & Rossman, 2003:501) with the two strands of the research supporting and augmenting each other. The design decisions that were taken in the evaluation of the programme were therefore "…*practical, contextually responsive, and consequential*" (Datta, 1997:33; Datta, 1994 in Greene & Caracelli, 2003:101).

The pragmatist view considered *'practical'* as referring to the researcher's reliance on her own experience of what was successful, and what needed to be abandoned. When the trainer/researcher had to respond to the demands, opportunities, and constraints of the situation in which the inquiry was conducted, she became *'contextually responsive'.* In addition, *'consequential'* referred to practical consequences *(Ibid.)* (original in italics). The implication was that whenever circumstances so required (considering the context of the research) the researcher had to make the necessary adjustments 'to make things work'.

The *data collection lens* in Figure 1-9 shows that several data sources from both strands of the research were employed because each shed light on the problem from a different angle and contributed to a corroboration of findings in answer to each of the research questions (Creswell, 1994:74). The quantitative strand included questionnaires, portfolio assessments, attendance registers, and financial statements, whereas the focus groups, a research diary, and testimonials represented the qualitative strand. During the quantitative strand of the research, the position of the researcher initially was on the outside as an objective observer,

but became more subjective for the qualitative strand when the trainer/researcher hovered on the periphery, and at times almost touched the inside. Considering the close contact and level of interaction between the researcher and the participants in this study, it was impossible for the researcher not be touched by the lives and the stories of the people in the research.

The researcher's role in this specific study was seen as an *interpretative bricoleur* ('quilt maker'), who produced a *'bricolage'* ('quilt') by piecing together different sets of representations within the specifics of a given situation (Denzin & Lincoln, 2005c:6). As *bricoleur*, the researcher moved between and within competing and overlapping perspectives which seemed less developed than paradigms. The solution *(bricolage)* took on different forms when the researcher added different tools and techniques of representation and interpretation to fit together the different pieces of the fabric.

In summary, the philosophical basis of the research was based on two assumptions: it acknowledged the existence of an external independent (social) reality; and realized that this reality had multiple characteristics (Miller, 2003:423). Such mixing of perspectives, theories, and research methods generally is considered to be a strength in educational research, as each compensates for the weaknesses of the other (McMillan & Schumacher, 2006:316). With reference to Figure 1-6 the context of the research is discussed next.

1.3.3 Context

The study was conducted in two contexts: A semi-rural context, and an urban context consisting of townships and informal settlements. A specific sample was trained in each context, which is discussed in the following section.

1.3.4 The research sample

With reference to Figure 1-6 there were 96 participants included in this study over a two-year period, of which 48 were trained in each of the two contexts for a period of one year. Twelve schools were included per year, of which each was represented by four participants. The participants from each school represented each grade level of the foundation phase (Gr. R, 1, 2, and 3). The trainer/researcher was a qualified speech-language therapist with interests in ECD and teacher support. District facilitators were not included in the study, but were trained. They assisted the trainer/researcher with the implementation of the programme. With reference to Figure 1-6 the following dimension to be discussed is the techniques.

1.3.5 Techniques and procedures

Figure 1-6 shows that the data collection for the two strands of the research occurred concurrently. Data analysis for the two strands was done separately according to the seven-step model devised by Onwuegbuzie and Teddlie (2003:373), and was conducted within a component design where results were offered in a parallel fashion (Greene & Caracelli, 2003:94, 99). The purpose of mixing methods was triangulation, where the two strands of the data were compared and corroborated where possible (Onwuegbuzie & Teddlie, 2003:376). In order to compare and integrate the results obtained from the two strands, the qualitative data were quantitized whenever possible. The interpretation of the inferences was subjected to a validation process before the final conclusion. Such a combination of strategies provided a holistic view of the value and worth of this specific professional development programme (Datta, 1994 in Greene & Caracelli, 2003:105). The next section guides the reader through the thesis.

1.4 Roadmap for the thesis

This section clarifies the relevant terminology and provides an outline of the chapters. All appendixes to chapters are presented on the Compact Disk included in this thesis.

1.4.1 Clarification of terminology

The terminology used in this thesis is grouped according to (a) terms related to teaching and learning, and (b) terms related to the evaluation of the programme.

(a) Terminology: Teaching and learning

(i) 'Learners' vs. 'children'

Throughout the text the term *'learners'* is used whenever reference is made to school pupils (Department of Education, 2002:35) and the term *'children'* is used for young children who are not yet in school and are therefore in the pre-Gr. R phase (<6yrs). In the specific context of the research this does not imply that such children necessarily attend early childhood development (ECD) centres, or even Gr. R, as not all the families can afford it (Winkler, 1998:3).

(ii) 'Teacher' vs. 'trainer/researcher'

The term *'teacher'* is used to refer to school teachers (also known as 'educators') (Department of Education, 1995:75) of foundation phase learners (Gr. R to Gr. 3) because it relates to terminology used in international literature in this regard. The term *'trainer'* is used for the 'instructor of the training' (Annon, 2007), or presenter of the workshops, and refers to the individual who developed the programme and conducted the research. For this reason the combined term *'trainer/researcher'* is used throughout the thesis.

(iii) 'Teacher training' and 'continued professional development' (CPD)

This study uses the term *'teacher training'* to refer to pre-service training, whereas *'teacher development'* and *'teacher support'* refer to ongoing support of teachers who are already in the field (Adler, 2003:xii). In this specific context these teachers were either professionally qualified, underqualified, or inappropriately qualified (Rembe, 2005:109; Welch, 2003:19). 'Teacher development' and 'teacher support' imply in-service training (e.g. workshops) (Adler, 2003:xii) and in this case also includes supportive school visits and the provision of support materials that inform and equip teachers.

CPD includes all the education, training, and support activities that teachers engage in following their initial teachers' qualification (Day & Sachs, 2004:3). It is an ongoing process linked to in-service training that enhances teachers' knowledge and skills. It further enables teachers to consider their attitudes and approaches with a view to improve the quality of teaching and learning (Bolam, 1993 in Earley & Bubb, 2004:4). Self-exploration is therefore a central element of CPD programmes, as it helps to "…unpeel the various personal and cultural layers that they have accumulated" (Sowden, 2007:305). It is a complex intellectual and emotional undertaking.

(iv) Continued professional development (CPD)

CPD has been described by various terms, e.g. 'in-service training', 'staff development', 'professional training', 'professional support', and more (Bolam, 1993 in Earley & Bubb, 2004:4). With reference to Figure 1.4 (Chapter 1), this specific programme can be considered as both *professional training* - because it provides a series of workshops - and *professional support* - since it combines workshops with both mentoring and practical components. Such activities aim to add to the trainees' professional knowledge, to improve their professional skills, and to assist in defining their professional values, and may therefore be of value to classroom learning.

CPD has been described as "…the ongoing professional development of teaching professionals" (Mothata, 2000:85). It refers to a process of education combined with experience that enables teachers and trainers to enquire into and reflect upon their work and roles, deepen their specialized knowledge, improve their effectiveness as facilitators of their students' learning, and prepare themselves for positions of greater responsibility and leadership. This process is also referred to as the in-service education of teachers (INSET). In-service education of teachers should be a continual process and linked to curriculum development (Taylor & Vinjevold, 1999a:230). Whilst most definitions of CPD emphasize the acquisition of content knowledge and teaching skills as its main purpose, professional growth or improvement is only part of what is required to bring about educational change and improvement in quality.

A distinction also needs to be made between the terms *'continued professional development programme'* (CPD) and *'programme/training programme'*: When the term 'CPD *programme'* is used, it refers to the specific support programme consisting of three components (training, mentoring and practical components).

The terms *'programme'* and *'training programme'* refer to the content-specific knowledge which is related to the disciplinary field and to the NCS. This information was included in the training component of the CPD programme by means of each of the three workshops in which the participants were trained to facilitate listening skills, language skills, or the language for numeracy.

(v) 'Curriculum' and 'outcomes-based education' (OBE)

Lawton and Gordon (1998:10) described *'curriculum'* as a selection from a culture within a society, but questioned the basis for deciding on what to include from a specific culture, as various subcultures exist within a given culture. In this study reference is made to the curriculum used to teach the learners in school, and the

curriculum used to train the teachers in this specific professional development programme. The former refers to the national curriculum statement (NCS) which is regarded as the grade-specific content, method, and method of instruction in South African schools (Thusi, 2006:6). In this study reference is made to the foundation phase curriculum (Gr. R to Gr. 3), particularly in the literacy and numeracy learning areas, which is further explained in Chapter 3 of this study. The NCS is based on an 'outcomes-based education' (OBE) approach that stipulates outcomes/competencies that the learners need to achieve at the end of the educational process in order to create the kind of citizens required in the transformation of this country (Granville *et al.*, 1997). With an OBE approach the process of learning is as important as the content being learnt (Department of Education, 2002:1) and also allows for the measurement of a learner's progress against these outcomes (Department of Education, 1997:3). It is defined as a way of designing and developing learning and documenting instruction in terms of outcomes (Department of Education, 1997:29-40). A learner-centred, activity-based approach is central to the process of teaching.

When reference is made to the *'curriculum design of the programme'* it implies the curriculum designed for the training of the participants in this specific study. It addresses the requirements of the NCS, but differs from the NCS in the sense that it is aimed at training the participants. It focuses on the necessary conceptual knowledge and skills to facilitate the NCS with regard to listening, language, and the language required for numeracy.

(vi) Numeracy

Similar to literacy, numeracy is a cornerstone of learning and therefore an essential component of the National Curriculum Statement. The Australian Association of Mathematics Teachers (AAMT) (Australian Association of Mathematics Teachers Inc., 1997:62) defined numeracy as "…the disposition to use underpinning

mathematical concepts and skills from across the discipline (numerical, spatial, graphical, statistical and algebraic), mathematical thinking and strategies, general thinking skills, and grounded appreciation of context". It involves the use of mathematical ideas efficiently to make sense of the world. Numeracy draws on knowledge of particular contexts and circumstances in deciding when to use mathematics, choosing the mathematics to use and critically evaluating its use. The world is interpreted in terms of an understanding of number, measurement, probability, data and spatial sense combined with critical mathematical thinking.

Numeracy and mathematics differ in terms of mathematics being "...abstract and platonic and based on absolute truths about relations among ideal objects", whereas numeracy is described as "… concrete and contextual, offering contingent solution to problems about real situations" (Steen, 2001:11). With a focus on the language for numeracy a description of numeracy as "…the *language* or system of *thought*" seems most appropriate (Bullock, 1994:735). This author *(Ibid)* distinguishes numeracy from mathematics on grounds that a too narrow focus when working with numbers may disregard abstract reasoning.

In the process of becoming numerate, the 'language of thought' develops through a process of mastering four levels of discourse: the language of social interaction, the language of the classroom, specific components of numeracy, and ultimately the construction of meaning(Gawned, 1993:27). These discourses consists of several components, will are discussed in Chapter 3.

(b) Terminology: Evaluation of the programme

(i) 'Assessment' vs. 'programme evaluation'

The terms *'assessment',* and *'programme evaluation'* are related but each has distinctly different roles. Programme evaluation is "…the use of social research

procedures to systematically investigate the effectiveness of social intervention programmes". When *'assessment'* is used in programme evaluation, it considers the outcomes of individual participants, and the previous experiences that have led to those outcomes (Kouwenhoven, Howie & Plomp, 2003:135). Assessment is included in the evaluation of a programme.

Evaluation will not be able to change anything in the programme, but can originate recommendations to be made for changes in future programmes. *'Programme evaluation'* therefore adds a reflective dimension to the overall process and is suitable to describe the process used to evaluate the value and worth of a specific programme. The goal in programme evaluation, therefore, is not a precise numerical figure, but a global assessment with specific narrative feedback (Wilkes & Bligh, 1999:1270).

(ii) 'Programme evaluation' vs. 'programme effectiveness'

The terms *'programme evaluation'* and *'programme effectiveness'* provide different angles from which a programme can be assessed (refer to Table 1-1) (adapted from Holton, 1996 in Alvarez, Salas & Garofano, 2004:389; Kraiger, 1993 in Cannon-Bowers *et al.*, 1995:311, 490).

Table 1-1: Difference between 'programme evaluation' and 'programme effectiveness'

Programme evaluation	Programme effectiveness
Evaluation provides the micro-view that focuses on measurement. It considers the learning at each level and is therefore the basis for determining the effectiveness of a particular intervention (Salas & Cannon-Bowers, 2001:491).	Provides a macro-view of training outcomes because it focuses on the learning system as a whole. Seeks to benefit the organization by determining why individuals did, or did not, learn. Training effectiveness looks at training from a systems perspective where the success thereof depends not only on the methods used, but also on how training, as well as learning, is regarded by, and supported by the organization. It also looks at the motivation of the trainees, and what mechanisms are in place to facilitate transfer of the newly acquired knowledge, skills, and attitudes to the work environment.
Methodological approach	Theoretical approach

Programme evaluation	Programme effectiveness
Determines the benefits to individuals in the form of learning and enhanced 'on-the-job' performance	Studies the individual, training, and organizational characteristics that have an effect on the training process prior to, during, and after the training.
Measures learning outcomes	Tries to understand the training outcomes by using post-training attitude and transfer measurements. Training effectiveness focuses on the variables that could affect the training outcomes.

Programme effectiveness is determined through research, while programme evaluation provides information to the stakeholders on a programme's value and worth (Thomas, Hovenberg & Edgren, 2006:172). Nevertheless, these two processes should ideally be integrated (Holton, 1996 in Alvarez *et al.*, 2004:385).

(iii) 'Programme evaluation' vs. 'evaluation research'

A distinction is also made between *'programme evaluation'* and *'research*', as they are intricately linked to the evaluation and effectiveness of a programme. Patton (2002:10) views *'programme evaluation'* as the examination and judgement of accomplishments and effectiveness, and *'evaluation research'* as the process by which evaluation is done systematically and empirically through careful data collection and thoughtful analysis. Although these two terms imply similar methods and approaches, they differ in their motivation, objectives, generalizability, tools, and criteria (Winberg, 1997:82).

- The motivation for research is to find answers to questions (Leedy & Ormrod, 2005:14), whereas an evaluation seeks to report to a client or funding agency on the value of its investment (Agochyia, 2002:45) or "…to improve, rather than to prove" (Stufflebeam, McKee & McKee, 2003:8). This may imply that defective efforts be terminated in an effort to assist organizations to make better use of their available resources and time.
- The two terms also differ in their objectives - research seeks to provide knowledge and understanding about a specific topic (Leedy & Ormrod, 2005:14),

whereas evaluation aims at making decisions and recommendations for improvements (Salas & Cannon-Bowers, 2001:491). The focus in research is more on the application of findings to other contexts (Wilkes & Bligh, 1999:1296) in contrast to evaluation where generalizability is limited by time, context, and other specifics (Babbie & Mouton, 2002:56; Winberg, 1997:82).

- Although both educational research and educational evaluation use similar tools and methods, the research results can be better generalized, while the interpretation of the results in programme evaluation is of more value to stakeholders.
- Good research is measured by internal and external validity (Leedy & Ormrod, 2005:84), accuracy, as well as appropriateness. Programme evaluation values external validity, but also accuracy and feasibility (Winberg, 1997:82).

(iv) 'Trustworthiness'

'Trustworthiness' is the common term used in mixed methods research for validity, and includes both quantitative and qualitative validity (Onwuegbuzie & Johnson, 2006). In the quantitative strand it is necessary to construct sufficient controls to warrant trustworthy conclusions to be drawn from the data (Leedy & Ormrod, 2005:97) (internal validity) and to make generalizations to other contexts (external validity). To obtain internal validity the researcher has to take precautions to eliminate any possible bias or effects on the results. In this case, triangulation was used to answer the research questions, and the researcher relied on the judgement of experts in all aspects related to the research.

In the qualitative strand validity is determined by the degree to which the participants and the researcher can agree on the descriptions and the composition of the events, as well as how they can concur in terms of the meaning of the event (McMillan & Schumacher, 2006:324). Qualitative validity is determined by the data collection and

analysis techniques. In this study it included prolonged and persistent fieldwork, the use of multimethod strategies that permitted triangulation of data, verbatim accounts (participants' own language), an external reviewer to agree (or disagree) on the interpretations, recorded data (tape recorder and camera), and member checking of focus group data.

1.4.2 Outline of the thesis

The layout of the thesis and summary of each chapter are summarized in Table 1-2, whereas Figure 1-10 provides a bird's eye view of how the different chapters relate to each other in meeting the aim of the research. The outline of the thesis provides a structure within which a scientific argument develops in answer to the various questions.

Table 1-2: Layout of the thesis

Chapter	Content of the chapter
Chapter 1: The design and development of a CPD programme	Various assessments have shown that South African learners experience challenges with respect to literacy and numeracy. This study therefore focused on the development of a support programme for teachers (to be used as part of their continuous professional development) to empower them in their role of teaching the principles of listening and language (with particular emphasis on the language for numeracy). The introductory chapter formulates the objectives of the study and focuses on the context and background, the problem statement, and the rationale for the study. This is used to define the scope of the proposed professional development programme.
Chapter 2: CPD within the education environment of South Africa	In this chapter the context in which the study is to be conducted is described in terms of key policies which affect CPD programmes in the education environment in South Africa. The process of CPD is explained, and brief reference is made to the factors that need to be considered in the development thereof, which includes the principles of adult learning, learning styles, motivational factors, and the role of culture.
Chapter 3: Design of the CPD programme	This chapter builds on the previously identified need for this specific support programme (identified in Chapter 1), and the principles to be addressed in CPD (presented in Chapter 2) by proposing the components used for development, and the learning areas covered by the support programme. It describes the three components of the proposed CPD programme, namely theoretical training, practical implementation, and mentoring. The relationships between these three components are explained in terms of the National Norms and Standards (Department of Education, 2000). The three components are used to address the key learning areas, i.e. listening, language, and the language for numeracy, as required by the NCS (Department of Education, 2002:1).

Chapter	Content of the chapter
Chapter 4: Programme evaluation	Chapter 4 provides a framework for assessing the proposed module. A critical overview is provided of the various approaches, and models of evaluating such a module, before a suitable model is selected. The Logic Model approach to evaluation is discussed in terms of its framework, components, and the evaluation methods. The key aspects included in evaluation (with reference to assumptions and prerequisites, factors to affect the process, the stages/phases, and the challenges) are reviewed.
Chapter 5: Research design and method	The fifth chapter provides the research design and method. The methodology of the research is presented as various phases, i.e. formulation, planning and design, early development, and implementation. The formulation phase addresses the aims of the study, and reasons for mixing methods. The planning phase addresses the sampling and research designs, followed by the early development phase that focuses on the development of materials and apparatus, as well as the pilot study. The implementation phase describes the process of doing mixed methods research with reference to the research procedures, data collection, and analysis, and lastly focuses on the process of legitimizing the research.
Chapters 6, Chapter 7, Chapter 8, and Chapter 9: Results and interpretation	The results of the research are discussed in four chapters, each focussing on a specific component of the Logic Model framework. Chapter 6 relates to the Input Component, Chapter 7 to the Process Component, Chapter 8 to the Output of the programme, and Chapter 9 to the Outcomes Component. Each component of the Logic Model is introduced by specific research questions to be answered. The research questions lead the presentation of the results, and both quantitative and qualitative inferences are discussed before a corroboration of inferences answers the particular research question within a triangulation design. Each of the results chapters is concluded with a critical assessment thereof.
Chapter 10: Conclusion to the study	Chapter 10 provides the conclusion and a critical review of the study. The implications and limitations are discussed, and suitable recommendations are made for future programmes and research.

From Figure 1-10 it can be seen that each chapter is initiated by a problem statement, which is then formulated as a question to be answered by the chapter.

1.5 Summary and conclusions

1.5.1 Summary

This chapter provided an introduction to the study by briefly discussing the South African context and reasons for the development of a CPD programme for foundation phase teachers. A model was proposed for a specific CPD programme, and a plan provided for its development. The development of the programme included a phase for the advanced development and evaluation thereof, the evaluation of the CPD programme being the focus of the research. The dimensions

of the research were discussed in terms of purpose, philosophical stance, context, and techniques (data collection and data analysis). Lastly, the terminology to be used was clarified, and an outline of the chapters to be included in the thesis was provided.

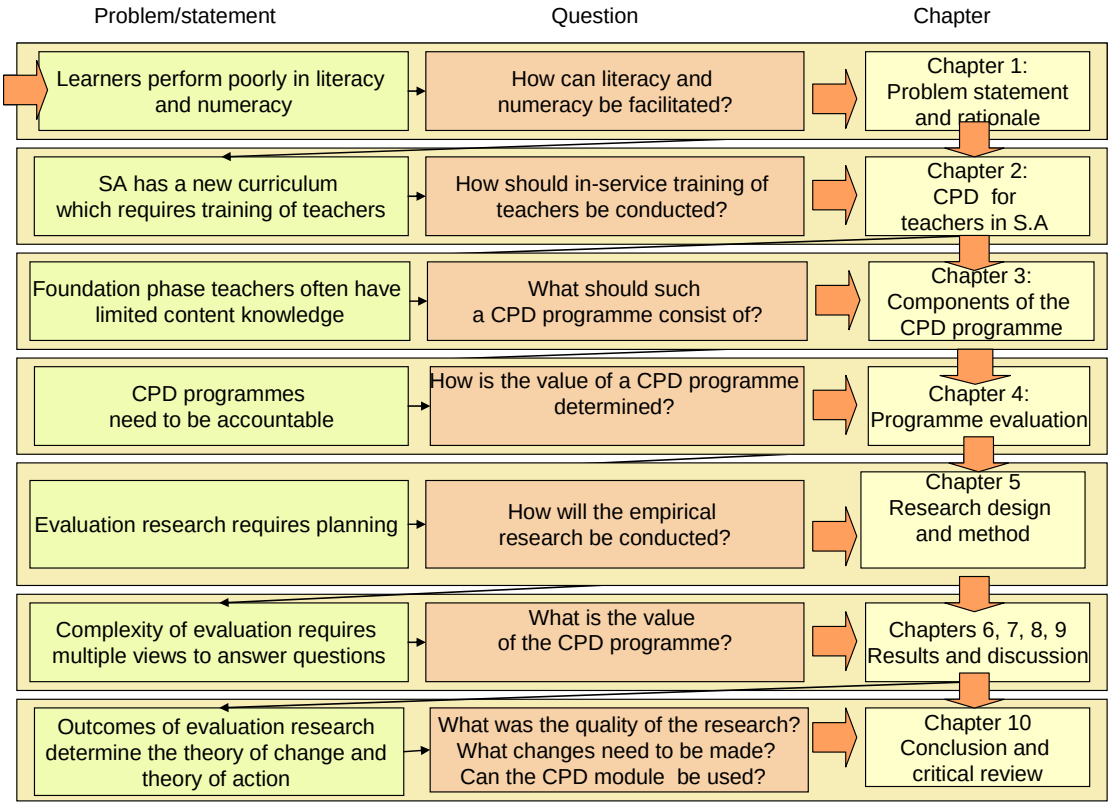

Figure 1-10: A bird's eye view of the thesis

1.5.2 Conclusions

The need for support of foundation phase teachers is clearly indicated (Daniels, 2007:7; Department of Education, 2006:3; Maree, 2006, in Nthite, 2006:10; Pandor, 2006). The development of this CPD programme for foundation phase teachers to facilitate listening and language for the learning of numeracy is relevant and timely.

The challenge, however, is to develop a CPD programme that links the participants' current levels of competence (knowledge, skills, and attitudes) with the requirements of the NCS and OBE (Killen, 2007:105) and to simultaneously align the programme

with the roles described in the Norms and Standards for Teachers (Department of Education, 2000).

The CPD programme should create an environment that allows teachers (as adult learners) to learn, develop and grow. Such a programme needs to be accountable and of high quality (Belzer, 2005:33; Harrison, Edwards & Brown, 2001:200; Salas & Cannon-Bowers, 2001:471) and therefore requires to be evaluated. The evaluation of the CPD programme will be conducted as research, and therefore needs to be carefully planned and structured. Based on this expression of intent for the study and by proposing a model of support, the focus in the next two chapters moves to continued professional development and the components of this particular CPD programme.

Chapter 2 Continued professional development for teachers

"The most important investment we can make (to increase quality) is to provide teachers with academically rigorous, credible and useful learning opportunities that will build their confidence and understanding in the subject matter they teach. In pursuing these opportunities, they must have sufficient time to read and think and write and to reflect on their practice"

(Metcalfe, 2008:10)

Aim of Chapter 2

This chapter focuses on continued professional development (CPD) for teachers in South Africa and provides guidelines for the planning of such activities. Figure 2-1 depicts a schematic outline of topics covered in this chapter.

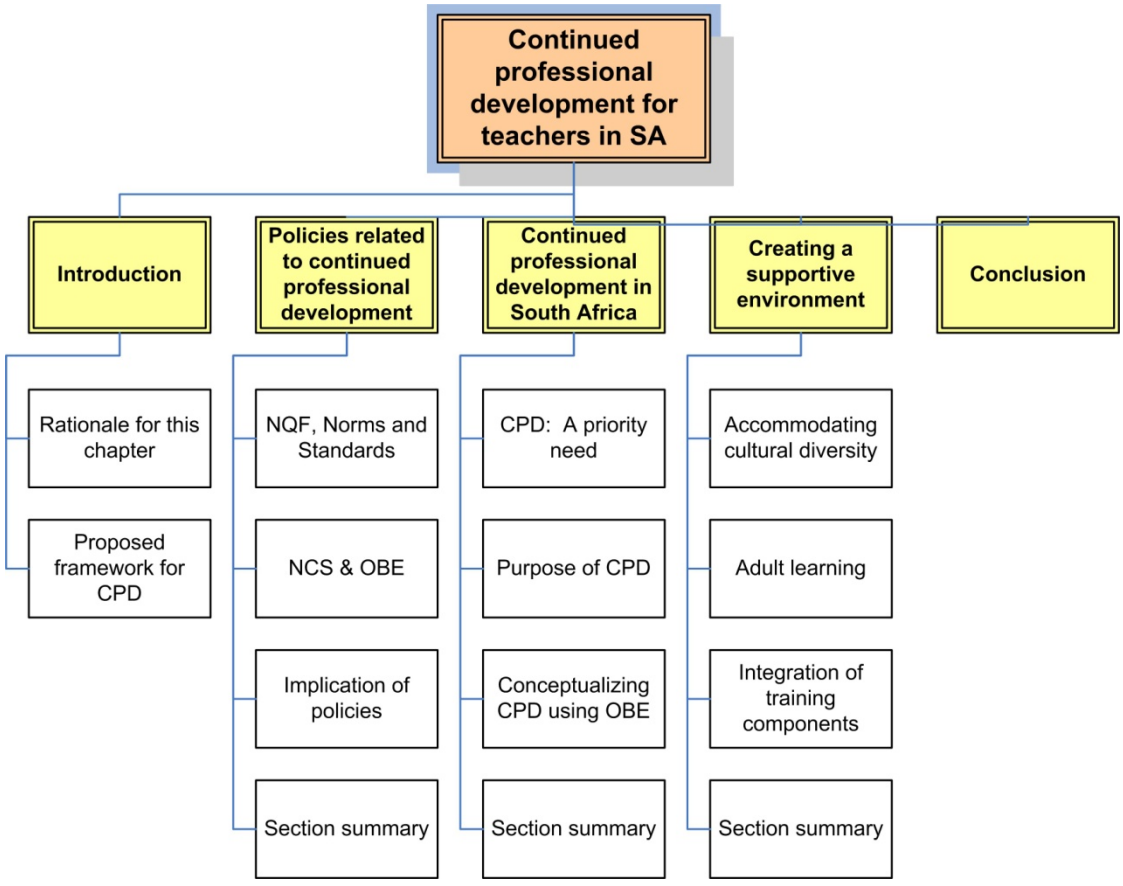

Figure 2-1: Framework of Chapter 2

2.1 Introduction

2.1.1 Rationale for this chapter

The political transformation in South Africa calls for new approaches to teaching and learning, and continued professional development (CPD) of teachers may provide in this need. There appears to be limited information on effective CPD programmes, specifically for foundation phase teachers and in the areas of listening and language for learning (or the language for numeracy). The reason may be that past CPD programmes were mainly dependent on donor aid from outside the country, which resulted in poor documentation regarding these programmes and few reports being published (Christie, Harley & Penny, 2004:169; Roberts, 2002:2).

There is a need for more evidence on effective CPD programmes in order to contribute to the local knowledge base (Daniels, 2007:7; Department of Education, 2006:3; Pandor, 2006). Considering the intent of this study (refer to Section 1.1.2) this chapter aims to create guidelines for the implementation of a continued professional development programme in a manner that is relevant for the local context.

2.1.2 Proposed framework for continued professional development

This section proposes a strategic framework for CPD for foundation phase teachers in this study (refer to Figure 2-2) whereby the various factors to be considered are delineated. The issues to be addressed within this framework are the following:

- Education policies in South Africa (including OBE) (Department of Education, 1997:2; 2002:1) (refer to Section 2.2). Political reform cannot be divorced from transformation in education, and several new policies need to be considered when planning teacher support programmes.

- CPD, with reference to the definition and the process (see Section 2.3). A new national curriculum statement (NCS) based on an OBE approach requires CPD of teachers.
- Workshops need to create an optimum learning environment for adult learners (Smith & Kolb, 1986 in Bowles, 2004:2; Knowles, Holgotn & Swanson, 1998:2) (see Section 2.4), each with their individual learning styles (Silberman, 1996:ix), and also need to consider diversity in teaching and learning (Butler, Lind & KcKoy, 2007:241) (refer to Section 2.4.1).

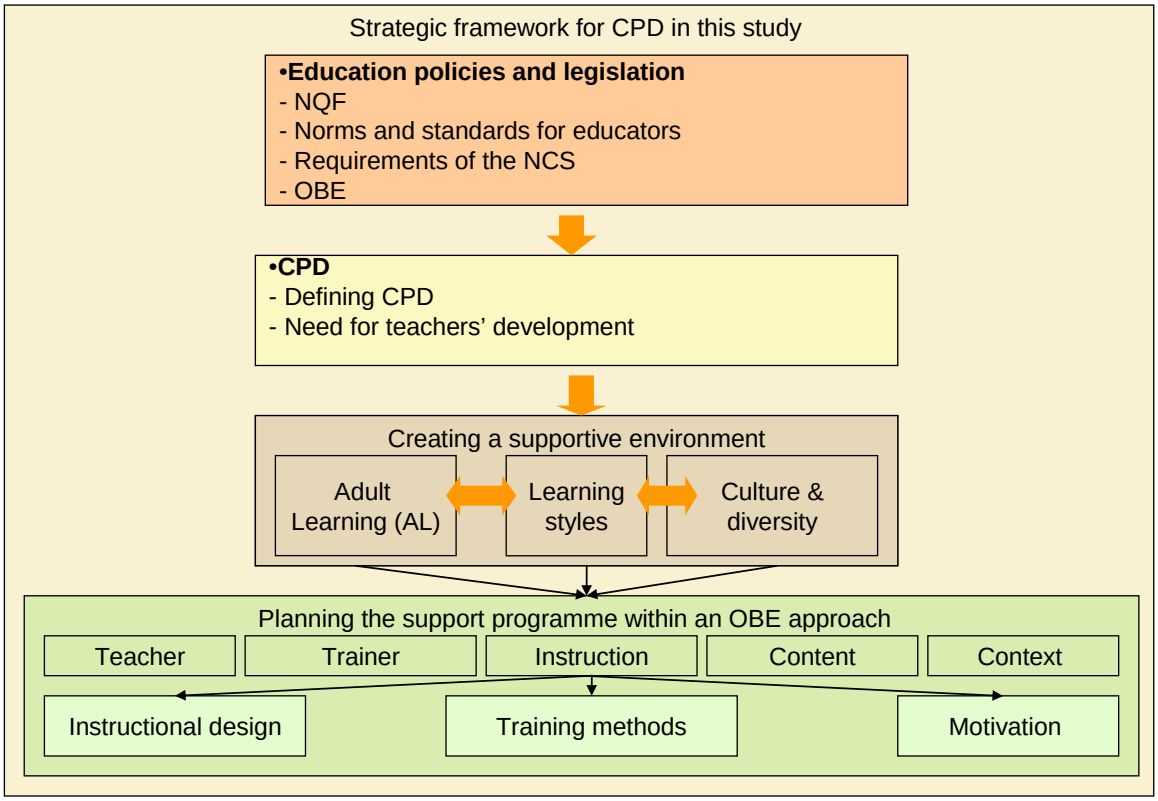

Figure 2-2: Integration map of key factors to be considered in the development of this CPD programme

2.2 Policies related to continued professional development

Political reform aimed at ridding the country of historical deficits and redressing past inequities. Policies that provided the broad fundamentals and structure for CPD (Christie *et al.*, 2004:182; Jansen, 2006) include: *The National Qualification*

Framework (NQF) (South African Qualifications Authority, 1995), *The Norms and Standards for Educators* (Department of Education, 2000:2), and *The Duties and Responsibilities of Educators* (Department of Education, 1998). The first two policies provided the framework and motivation for the development of the current CPD programme and are discussed further in the following section.

2.2.1 National Qualifications Framework

The *National Qualification Framework* (NQF) (National Department of Education, 2000:1) was originally established in order to transform education and training. Stemming from the roots of discontent with the quality in education, this framework provided an appropriate means to commit teachers to lifelong learning by placing pre-service education training (PRESET) and in-service education training (INSET) on a continuum, whilst the *Norms and Standards for Educators* (Department of Education, 2000:2) provided a flexible and generative basis for the professional development of educators who are required to register with the South African Council of Educators (SACE).

The exit-level outcomes required by the South African Qualifications Authority (SAQA) (1995:5) and the NQF (National Department of Education, 2000:1) refer to applied competencies that assures that teachers are knowledgeable in terms of the principles that underlie good teaching practices (Killen, 2000:vi).

The Norms and Standards for Educators (Department of Education, 2000:1) and the *National Curriculum Statement* (NCS) (Department of Education, 2002:3) envisage teachers to be qualified, competent, dedicated, and caring. The implication is that foundation phase teachers are required to be specialists in this phase, specialists in teaching and learning, and specialists in assessment. Not only are they expected to be masters of the content of their subjects, and understand how children learn (Du

Toit, Froneman & Maree, 2002:158), but also to be curriculum developers, leaders, administrators, managers, assessors, good citizens and community members, and to provide pastoral care in a context characterized by poverty, lack of employment, illiteracy, violence, and HIV/AIDS (Department of Education, 2002:3). Teachers are required to provide a positive learning environment that is conducive to successful learning in these adverse circumstances.

To meet the requirements defined in the *National Norms and Standards for Educators* (Department of Education, 2000:1) (see Figure.1.3) teachers have a lifelong obligation to learn in order to improve their teaching, which encompasses all of their other roles. The significance of lifelong learning is that when teachers learn, so will their learners. Therefore teachers' learning contributes to the creation and establishment of an entire learning community (Dennison & Kirk, 1990:9). Although the expectations set out above represent a daunting challenge that requires competent, well-trained teachers, the reality is that in the local context teachers do not necessarily conform to these standards (Maree & Fraser, 2004:706; SAPA, 2006:1).

2.2.2 The new curriculum and outcomes-based education

Since the inception of *Curriculum 2005* in 1998, and later the *Revised National Curriculum* (NCS) (Department of Education, 2002:1), teachers have been expected to make a paradigm shift with regard to their teaching and learning practices in the classroom. The OBE approach requires teachers to be 'facilitators of knowledge' (Department of Education, 2006:5), who assist their learners to construct their own meaning of the material learnt (Killen, 2007:7; Rubin & Spady, 1984:38).

The NCS and OBE require a learner-centred approach to teaching that is based on the principles of OBE and is aligned with the roles of teachers stipulated in the

Norms and Standards for Educators (Department of Education, 2000:2). The teacher's main role is to facilitate learning rather than to be a source of knowledge (Spady, 1994b:18). Instead of memorizing knowledge, learners are helped to construct their own knowledge where learning is facilitated through a range of experiences (Killen, 2000:vii). By experimenting with a range of teaching strategies, teachers need to reflect on their training and its effect on their learners' achievements (Spady, 1994a:1). Such reflection on their own practices will also help them to understand the rationale for teaching. This specific programme further had to support teachers in fulfilling their roles, and help them to become true facilitators of learning (in this case, listening and language skills).

When planning a learning activity the teacher firstly has to set the outcomes and then plan the instructional design (Miller & Watts, 1990:54). The instructional design has to match the learner's prior knowledge, motivation, and level of interest (Rubin & Spady, 1984:38). Although the teacher has to set the agenda for learning in such an approach, she/he has much less control over what and how the learners learn (Department of Education, 2006:3). Learners also may need to first learn basic skills and specific procedures before they will be able to apply the strategies taught. Cooperative learning is one of several strategies (Killen, 2007:190) of such an approach where trainees learn through group investigations.

To successfully implement the new education system, teachers need to be motivated and equipped with the necessary skills and knowledge (McDonald & Van der Horst, 2001:1 in Gouws & Dicker, 2006:419). If teachers perceive that they lack the required skills because of the high expectations, they may feel vulnerable and threatened (Gouws & Dicker, 2006:416), and therefore they may benefit from additional support provided by CPD activities.

2.2.3 Implication of policies for the development of this programme

The National Qualifications Framework (South African Qualifications Authority, 1995:5) and the *Norms and Standards for Educators* (Department of Education, 2000:2) require teachers to play specific roles in the education of learners, and to contribute significantly to their intellectual, moral, and cultural development (Department of Education, 2006:3). Teachers are therefore regarded as the key role players in the transformation process of education (Du Toit *et al.*, 2002:158) and are expected to implement the NCS within the OBE approach. It does not imply that all teachers are necessarily competent or trained to implement the NCS, and therefore these policies affirm the necessity of CPD to renew and refresh their knowledge and skills.

Although many more teachers have recently become more involved in the implementation of OBE and the NCS (Gouws & Dicker, 2006:417), Schlebusch and Thobedi (2004:46) caution trainers to be realistic in their expectations as change may require time before any significant transformation can be expected. These authors (*ibid*.) found that teachers persisted in using outdated teaching approaches despite forty hours of in-service training in OBE and the curriculum because they were familiar with their previous practices and found it difficult to change.

New CPD programmes need to correct the mistakes made in previous in-service training programmes of OBE and Curriculum 2005 (Department of Education, 2002:1), specifically in 'black[3] schools' (Jansen, 1998:318; Motseke, 2005:116; Schlebusch & Thobedi, 2004:46). These mistakes include inconsistencies regarding concepts, principles, procedures, terminology, and lesson plans, which have

[3] Reference to 'black schools' is made to identify schools which were most affected by apartheid and where all the learners are African (e.g. in semi-rural areas, townships and informal settlements).

changed since earlier applications (Coetzer, 2001 in Motseke, 2005:115). Jansen (1998:18) criticized previous programmes as being too theoretical in nature. Even though such criticism may appear to be over-generalized, it does emphasize the importance of programmes to also focus on skills development. Teachers also need opportunities to observe the application of knowledge and to practice and apply this new knowledge in real-life contexts (Adler *et al.*, 2003b:135). By observing the implementation of strategies, learning is facilitated as it not only familiarizes teachers with such strategies, but they also learn from what they see and from practical experience (Dennison & Kirk, 1990:6). Because OBE is applicable on many educational levels (Rubin & Spady, 1984:38), it was an appropriate training approach in this particular CPD programme.

2.2.4 Section summary

The education policies related to CPD of teachers set clear expectations of teachers' roles. Because of the high demands placed on teachers in the new education system, many teachers require support. CPD programmes need to provide teachers with content knowledge and the opportunity to observe and practice new skills.

2.3 Continued professional development in South Africa

2.3.1 Continued professional development: A priority need

The National Policy Framework for Teacher Education and Development (Department of Education, 2006:16) confirms the importance of CPD in raising the standard of education. As 'once-off training' does not equip any individual for changes in circumstances, and/or the various demands placed upon them throughout their careers, CPD is a professional responsibility and entitlement. The Department of Education has committed each teacher to 80 hours in-service

education (INSET) per annum (Hindle, 1998:5; Roberts, 2002:40) to become trained in the NCS and the implementation of an OBE approach. To meet this need, formal teacher education institutions, non-governmental organizations (NGOs), and provincial departments of education are encouraged to contribute to CPD and teacher support.

In an effort to raise the quality of education, the Minister of Education (Daniels, 2007:26; Department of Education, 2006:3; Pandor, 2006) announced accreditation measures for teachers, which presently are being negotiated with teacher unions. Such measures, together with the *National Qualifications Framework* (*NQF)* (SAQA, 1997:1) create a demand for CPD and short courses that enable teachers to acquire or maintain professional status, and advance their career paths (Welch, 2003:32). This is of particular significance to the development of foundation phase educators (including Gr. R teachers) who are not necessarily adequately qualified. By enrolling in such courses they are provided the opportunity to improve their competence and qualifications.

The importance of supporting teachers in terms of content knowledge – as well as the effect of the absence thereof – has been emphasized repeatedly by previous studies (Adler *et al.*, 2003b:113; Taylor & Vinjevold, 1999a:227). However, content knowledge on its own is not sufficient to develop competence in teachers. Effective support/training also requires knowledge of how to engage the trainees in the training activity, and how to organize the information for the purposes of learning (Killen, 2000:xiv). The information to be trained needs to be relevant to the NCS, and needs to include both theoretical and practical components. These issues require careful consideration of the manner in which training is to be conducted within an OBE approach, and how teacher training should be viewed.

2.3.2 Purpose of continued professional development

If the purpose of CPD is to improve quality of teaching, it has to be aligned with both individual and systemic drivers, which are illustrated in Figure 2-3 (Jones, 2003:37, in Earley & Bubb, 2004:9).

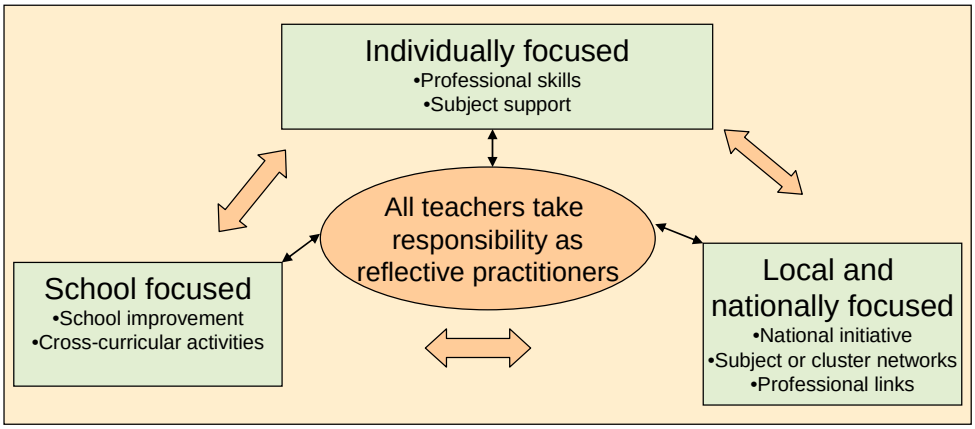

Figure 2-3: The purpose of CPD

With reference to Figure 2-3, the purpose of CPD should firstly be to support the teacher, that is to say the personal motivation and need of the individual to sustain or improve his/her competence should be considered (Grundy & Robinson, 2004:161). As adult learners they are internally motivated to learn (Wlodkowski, 2003:40). CPD therefore serves an *extension function* (Grundy & Robinson, 2004:147) by extending teachers' knowledge and skills through educational innovation, as well as a *renewal function* by updating and extending the teachers' knowledge and skills, to ensure continuing competence in the classroom. Through CPD teachers become cognizant of new practices and new developments in their professional field *(Ibid.)*.

On the other hand, because of the current challenges that exist in education and the high demands that are placed on them, many teachers have become despondent and lack the motivation to teach. These teachers need to be revitalized with new knowledge and skills in order to re-establish enthusiasm for their work (Pandor as quoted by Daniels, 2007:7). In this case CPD can also serve a *renewal* function

(Grundy & Robinson, 2004:147) that is focused on restoring enthusiasm and commitment (Department of Education, 2006:3). In both instances CPD activities form part of the *growth* and development cycle of any teacher's professional career as they are intended to *"…rejuvenate practice, to expand our professional repertoire, increase our self esteem, self-confidence and enthusiasm for teaching or, for example, our level of criticality and, thereby, achieve enhanced job satisfaction"* (Pacher & Field, 2004: 2 in Earley & Bubb, 2004:14).

Day (1999:4) is of the opinion that, in order to improve the quality of education in the classroom, the focus of training should go beyond the training of knowledge and skills of the individual to include also the school. The conditions in schools affect classroom learning and therefore the school and systemic context (Killen, 2007:2) also need to be included in CPD programmes, either directly or indirectly in order to eventually improve the quality of teaching and learning in the classroom. The teachers' current knowledge should be linked to curriculum reform, which represents the priorities of the government. This implies that there should be a balance between individual, school, and national needs (Bolam, 2002 in Earley & Bubb, 2004:2) (refer to Figure 2-3).

2.3.3 Continued professional development for teachers using OBE

The reform movement in education requires that a constructivist approach to *learning* needs to be applied in formulating a constructivist form of *training* (Killen, 2007:7). As indicated above, the underlying principles of OBE require the trainer to become a 'facilitator of knowledge' (Department of Education, 2000:2) by structuring the learning environments and activities in such a way that trainees are assisted in constructing their own knowledge, rather than to passively receive it. The implementation of OBE creates a different approach to teacher support, as teachers

may either be viewed as 'technicians' or as 'reflective practitioners' (Stuart & Kunje, 2000: 5 in Christie *et al.*, 2004:171; Gilbert, 1994:512; Killen, 2007:94).

The '*technician*' typology is aligned with the traditional in-service training models which follow a deficit approach where the teacher is viewed as a passive receiver of information (Killen, 2007:94). In this typology, teachers are viewed as inefficient and obsolete, having limited training, and not being up to date in terms of their knowledge and skills. The assumption is that teachers have little knowledge of their own, and because they are not regarded as active participants in their own professional growth, require help from people in authority (e.g. authorities within the Department of Education, service providers, or academics) (Lieberman & Miller, 1990:105). Such a view does not provide for school contexts in which reflection takes place, and generally restricts the prospect for CPD and/or personal growth. CPD activities within such a framework of thought are typically directed at institutions and systems (Stuart & Kunje, 2000: 5 in Christie *et al.*, 2004:171). This is in direct contrast with the principles of adult learning, which suggest that adult learners should be considered experts in their own right, and that their prior experiences should be acknowledged and valued (Cyr, 1999:2; Knowles, 1977:55). It also concurs with the OBE approach which requires that previous experiences be acknowledged, and that new knowledge be built on these experiences (Killen, 2007:78).

Contrary to the 'technician' view, the viewpoint of the 'teacher as 'reflective practitioner' values the development of sensitivity to the context (Jackson, 1971 in Christie *et al.*, 2004:171), and therefore reflection is essential to a 'learner-centred approach' (Killen, 2007:78). Such sensitivity to the context also accommodates cultural diversity (Butler *et al.*, 2007:243). Consequently, CPD of teachers within an OBE approach requires a shift in practice from viewing the 'teacher as a technician', which is a 'deficit model', towards 'the teacher as reflective practitioner', which is a

'growth model'. When applied to CPD the latter view of teacher training is specifically directed at the trainee as person and professional, and considers teaching a complex activity that requires teachers to develop creative responses to challenging circumstances (Jackson, 1971 in Christie *et al.*, 2004:171).

The key elements in professional development activities should include engagement, self-reflection, and behaviour modelling (Wilson, 2004 in Girolametto *et al.*, 2007:73). The challenge in teacher support lies in the conflict between the traditional view of teachers as technicians, as opposed to teachers becoming reflective practitioners with extended roles. In order to meet this challenge of creating reflective practitioners, it is necessary for CPD programmes to include the reflective-affective dimension.

2.3.4 Section summary

This section emphasized CPD as a priority to raise the quality of education. CPD was described with reference to the various terminologies used, and also as an ongoing process. The purpose of CPD was described as the teaching of knowledge and skills of the individual, but was also extended to address the needs at school and national level, aligning it with a systems approach. This section confirmed the need for CPD in meeting the challenges of education reform within the local context. The next step is to develop an understanding of how the knowledge can be effectively transferred within a supportive environment.

2.4 Creating a supportive environment

A supportive environment that facilitates learning is required to establish a successful partnership between the trainer and the trainees (Imel, 1995:3; Killen, 2000:xvi; 2007:79; Rogers, 1994:2). The trainer should recognize those factors that

motivate (or de-motivate) adult learners to participate in learning experiences, such as shown in Figure 2-4.

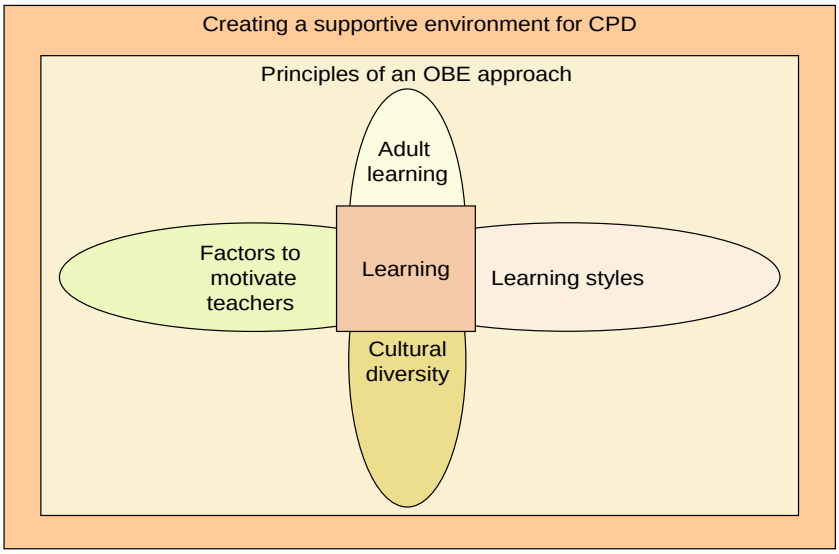

Figure 2-4: Considerations in the creation of a supportive environment for CPD

In order to create a supportive environment the trainer has to acknowledge teachers as adult learners who come from diverse cultures and who have different individual preferences in learning.

2.4.1 Accommodating cultural diversity

Since the shift in emphasis away from teaching towards learning (which developed into the learner-centred approach), the role played by culture in classrooms (which includes CPD classrooms) received more prominence (Sowden, 2007:304). Although culture is acquired externally, it influences the internal nature of individuals (e.g. the way in which a group of people views the world, how the self is experienced, how people view reality, and how expectations are created), and therefore creates a blueprint for personal and social existence (Brown in Finkbeiner & Koplin, 2002:28). Culture therefore affects the emotional and cognitive aspects of learning (Bruner, 1966:43; Janse van Rensburg, 1998:35; Snowman & Biehler,

1996:139) and should therefore be taken into account in any instructional design (Kramer, 2001:26). A culturally responsive and sensitive learning environment will induce a feeling of comfort, safety, and belonging in the trainees, and will therefore enhance learning.

Even with the best of intentions, individuals are not always aware of behaviours and customs that are culturally based (Althen, 1988 in Lynch, 1998:50) and such ignorance may cause friction and misunderstanding with detrimental effects for learning. The trainer should not only create an environment where participants feel safe and comfortable (both physically and psychologically), but one that also challenges them. This requires the trainer to embark on a process of developing cross-cultural competence, implying that the trainer *"…thinks, feels, and acts in ways that acknowledge, respect, and build upon ethnic, (socio)cultural, and linguistic diversity"* (Lynch, 1998:49).

When planning a CPD programme the development of cross-cultural competence should be seen as a continuum, starting with the trainer's awareness of his/her own culture, followed by obtaining general information about the ways in which values, beliefs, and behaviours may differ across cultures (Sowden, 2007:305). It is not enough to be cognizant of the differences between Western and African perspectives when planning new educational programmes – the real challenge is to translate such differences into practices that will create a learning environment to suit all cultures.

Successful multicultural programmes aim to promote respect for diversity, reduction of ethnocentrism and stereotypes, and to improve learning (Lynch, 1998:55). It is firstly necessary for the trainer to acknowledge that cultural pluralism exists. Multiculturalism needs to be considered from two perspectives, i.e. the "other" relevant culture/s, and that of the trainer/developer of the programme (Snowman &

Biehler, 1996:139). Programmes are multidimensional and therefore the effect of culture on all components of the educational experience need to be considered (Butler *et al.*, 2007:243) in order to increase the probability of effective learning. Ignoring any of the cultural components may hamper learning. It is clear that trainers should become aware of cultural influences in order to design programmes that will accommodate all trainees. Figure 2-5 shows the constructs related to CPD programmes, each of which could be affected by culture and hence become potential barriers to training success when working with diverse populations.

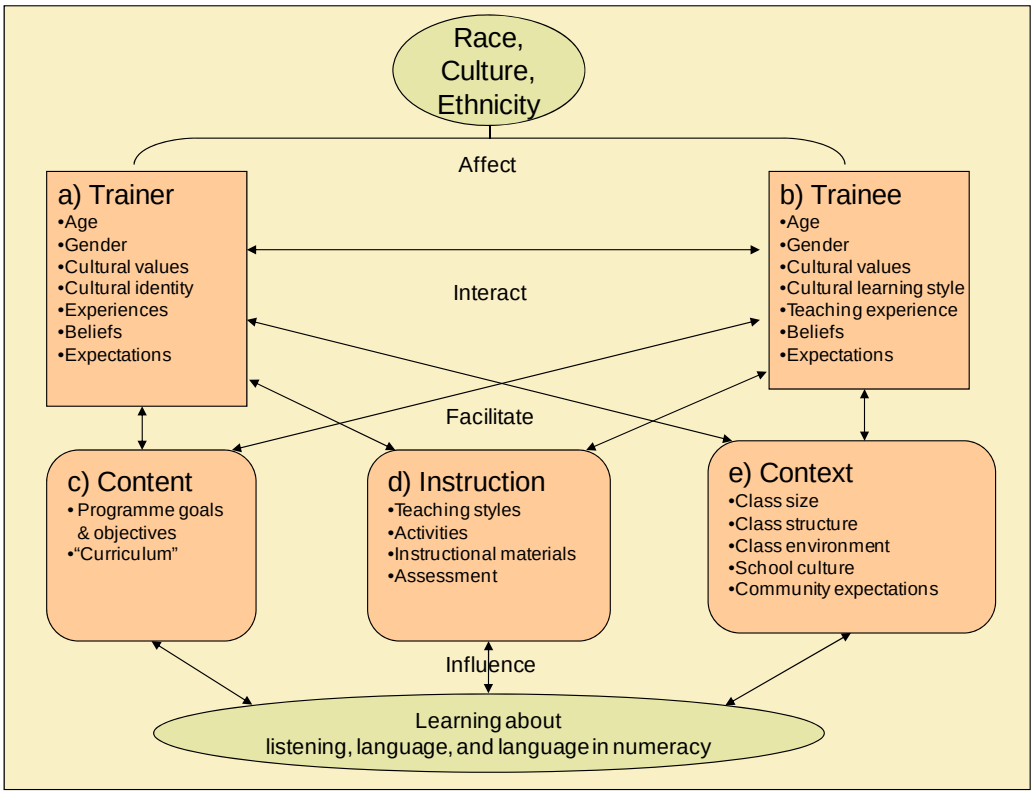

Figure 2-5: A multidimensional model for diversity training as applied to this programme

Cultural diversity, however, should not be viewed in isolation from other factors, as they are interrelated in many ways. The trainees/participants in this study were adult learners, with very particular preferences in terms of learning.

(a) The trainer

Villegas and Lucas (in Butler *et al.*, 2007:244) described culturally responsive trainers as being socio-culturally conscious, having affirming views of students from diverse backgrounds, rather than viewing differences as problems that should be overcome. They also hold themselves responsible for educational change, and understand that trainees construct meaning in various and overlapping ways. In addition, they have knowledge of the trainees' backgrounds. These trainer characteristics are in accord with the underlying principles of OBE (Killen, 2000:vii). Sowden (2007:305) was of the opinion that appropriate personal qualities (e.g. "…the ability to relate to trainees, the role of enthusiasm for the subject and the interaction of these, together with a sense of purpose and organization") are what count most in developing intercultural communicative competence. A well-rounded, confident, and experienced individual is also a good trainer *(Ibid.),* which emphasizes the importance of holistic trainer development. Reflection on training practices involves reflecting on the self, which is the first step in developing cross-cultural competence. Education in a multicultural context needs to be based on the assumption that there are multiple points of view from which people, events, concepts, and themes may be understood (Butler *et al.*, 2007:243). In order to provide culture-friendly learning experiences, trainers of multicultural workshops have to continuously expand their own knowledge based on culture-specific information in order to understand and explain cultural values, beliefs, and behaviours that may be encountered in interactions of a multicultural nature (Lynch, 1998:55). Furthermore, it is important for trainers to continually work at deepening their own understanding of their trainees and their world. In essence, it appears that successful multicultural trainers need to have a high level of dedication, and show a strong affinity for trainees.

(b) The trainees

Some trainees may develop negative attitudes owing to issues related to race, ethnicity, gender, and culture (Butler *et al.*, 2007:246). These attitudes may impact on effective learning, and therefore need to be taken into account when planning training events (Weaver, 1993: 160 quoted by Finkbeiner & Koplin, 2002:28; Louw, 2004:259). Knowledge of such issues may assist trainers in designing learning experiences that meet the trainees' needs. Attitudes and values may also affect interactions and/or relationships, and could affect motivation to participate in training activities. To facilitate learning and promote healthy relations within a group, it is therefore necessary to include a component of personal development in a training programme (Agochyia, 2002:87). This implies that the trainer has to allow for sufficient time for such activities, and as a result will become less trainer-directed and more trainee-directed in delivering the curriculum (Killen, 2000:25).

(c) Content component

Congruent with the OBE approach to training, the goals and objectives of the teaching programme determines the content of the teaching material (Killen, 2000:viii). Content knowledge relates to the "…concepts, principles, relationships, processes, and applications a student should know within a given academic subject, appropriate for his/her and organization of the knowledge" (Ozden, 2008:634) Decisions in terms of the content may either include or exclude certain populations, and therefore need to be considered in the conceptual model/phase of the training design. To include all trainees/participants it is important for trainers to allocate assignments/projects and activities that allow learners to demonstrate culture-specific knowledge and skills (Butler *et al.*, 2007:246). If an individual/learner is given the opportunity to uphold his/her language and culture in an educational

situation, he/she is most likely to attain better academic achievements (Goduka & Swadener, 1999). The trainer therefore has to appreciate work compiled from cultural and linguistic resources that trainees bring to the training (Cochran-Smith in Butler *et al.*, 2007:248). Failing to do so, or a lack of trainer interest, will alienate trainees.

(d) Instructional component

Apart from the content of the curriculum, adult learners' participation depends on how the instruction is presented, that is the kind of learning activities in combination with the trainer's instructional style. Trainees from African cultures usually come from community settings in which collaborative relationships are valued; they function within close-knit family groups, and therefore prefer learning in groups rather than to participate competitively (Snowman & Biehler, 1996:143). Research on programmes directed at trainees from Afro-American descent reported higher participation rates when they did not emphasize rules, order, and organization, as opposed to those that did (Lind & Butler in Butler *et al.*, 2007:248).

The instructional design should be sensitive towards the specific profiles of the trainees and their learning preferences, such as applied in this study (refer to Appendix 2A). In some instances, e.g. in African cultures, strategies such as oral learning or emphasis on creative arts with a kinaesthetic and affective orientation (singing and dancing) may add a positive dimension to the learning experience (Hale, 2001 in Butler *et al.*, 2007:247; Mbigi, 2005:7). The particular instructional design for this CPD programme is discussed in Chapter 3.

One of the challenges in the development of multicultural and multilingual programmes is to acknowledge the various languages and cultures represented whilst appreciating the diversity as a resource rather than a barrier in the training

situation. It is therefore important to address such challenges (by making use of interpreters to assist in the transfer of information or by allowing more time for the completion of questionnaires) (Goldstein, 2000 in Louw, 2004:264).

Differences *in language and culture* may cause trainers to misunderstand their learners' aptitudes, intent, or abilities, and therefore trainers need to be aware of and accommodate such differences in their instructional designs. To avoid misunderstanding and communication breakdown, trainers have to be aware of cultural differences beforehand (e.g. in terms of communication patterns and preferences, time orientation, values, as well as the language used in training) (Lynch, 1998:48, 60; Snowman & Biehler, 1996:143).

Different cultures use body language and non-verbal communication differently (Lynch, 1998:72) and trainers need to familiarize themselves with these differences and become sensitized so as not to embarrass or confuse the trainees. Cultures also differ in terms of their orientation to time: Western cultures are generally highly time-orientated, whilst African cultures may find a rigid approach too restrictive (Lynch, 1998:60; Snowman & Biehler, 1996:143). In practice, a trainer who was raised in a culture that values punctuality may find it unacceptable when participants arrive late for workshops and his/her response to such behaviour may in turn trigger an adverse reaction from the learners. This may require the entire group to negotiate rules and expectations prior to the onset of the programme. In this way a comfortable middle ground may be found, as well as some space on both sides for mutual accommodation.

In the local context English is the preferred language of instruction on tertiary level and in professional training (Naudé, 2005:34). Many teachers in previously disadvantaged areas in South Africa have a poor command of English, which leads to uncertainty and failure to master OBE (Motseke, 2005:114). Most of the teachers

in South Africa received their professional training and teaching support in English, but this does not imply that they are proficient enough to use English for academic purposes.

Although participants in training programmes may be able to use English as basic interpersonal communication skill (BICS) (Cummins, 2000:56), programme developers should be aware that cultural insensitivity and over-reliance on certain familiar cultural capital may be a stumbling block in trainees' learning (Centre for Higher Education Development, 2003:5). Programmes aimed at teachers' development need to take this factor into account and provide the necessary support to accommodate trainees' limited proficiency in English (Goldstein, 2000 in Louw, 2004:264).

Instructional strategies which proved to be well suited for culturally responsive teaching and which are also used in an OBE approach (Killen, 2007:6) include peer tutoring, cooperative learning, and mastery learning (Wlodkowsi and Ginsberg, 1995 in Snowman & Biehler, 1996:154). Peer tutoring has been reported (Yuen Loke & Chow, 2007:243) to create positive learning outcomes, i.e. cognitive gains, improved communication, self-confidence, and social support among trainees.

Cooperative learning (Killen, 2007:7), which is closely related to peer tutoring, has been found to be particularly effective in cultures with extended families that emphasize cooperation and sharing, such as African cultures (Sadker and Sadker, 1991 in Snowman & Biehler, 1996:156). This is because collaboration between peers provides a forum for discovery learning and facilitates cognitive processes, e.g. verification and criticism (Slavin in Kramarski & Mevarech, 2003:282).

Adult training is usually done in groups (Rogers, 1994:5) as it contributes to the development of a collaborative, participative learning environment. Small group

activities foster peer relationships, and informal spontaneous groups are ideal for short-term activities such as brainstorming (Rogers, 1989 in Imel, 1995:3). Group work also provides support to self-directed learners who rely on peer instruction (Brookfield, 1992:83).

The instructional strategies that are reportedly most effective in cross-cultural training include the setting of clear objectives, the communication of high expectations, the monitoring of progress with immediate feedback, and making lessons meaningful (Garcia 1994 in Snowman & Biehler, 1996:157). Such strategies are also in accord with the principles of an outcomes-based approach (Killen, 2000:vii).

(e) Contextual component

Adult learners are independent and self-directed and need to feel in control of their own learning (Knowles, 1975:1). Participation in CPD programmes therefore needs to be voluntary and not coerced and contexts need to be of such a nature to support learning and participation in CPD programmes.

Factors such as class size, support facilities (e.g. photocopiers, fax machines, internet), and suitable teaching material can affect participation. Schools with sufficient support structures in place (e.g. a mentoring programme for inexperienced teachers, staff development programmes, multimedia equipment) create a supportive environment for teachers, resulting in positive outcomes for teaching and learning (Butler *et al.*, 2007:242).

Although such support may be the ideal, reality proves differently as past inequities have not yet been eradicated across contexts. It is therefore important to address the needs of schools where there is limited evidence of a supportive environment by providing support on institutional (school) level. With reference to Figure 2-4 the

next factor to be considered in the creation of a supportive environment is the fact that the trainees in this CPD programme are adult learners and therefore require a particular training approach.

2.4.2 Adult learning

The theory of adult learning is based on the principle that adults want to feel in charge and be active participants in their own learning (Knowles, 1973:3; Pike, 1989). They also bring a wide range of experience with them to the training situation which should be acknowledged (Knowles, 1977:28). Adults become motivated to learn when they see the relevance of the learning objectives and activities for their own work (Cyr, 1999:2). They have strong learning preferences, as well as varying aptitudes and abilities (Ference & Vockell, 1994:25). The complexity of adult learning (Rogers, 1994:32), and the various factors that can influence the effectiveness of thereof (Honey & Mumford, 2000:8; Killen, 2000:xi) are shown in Figure 2-6.

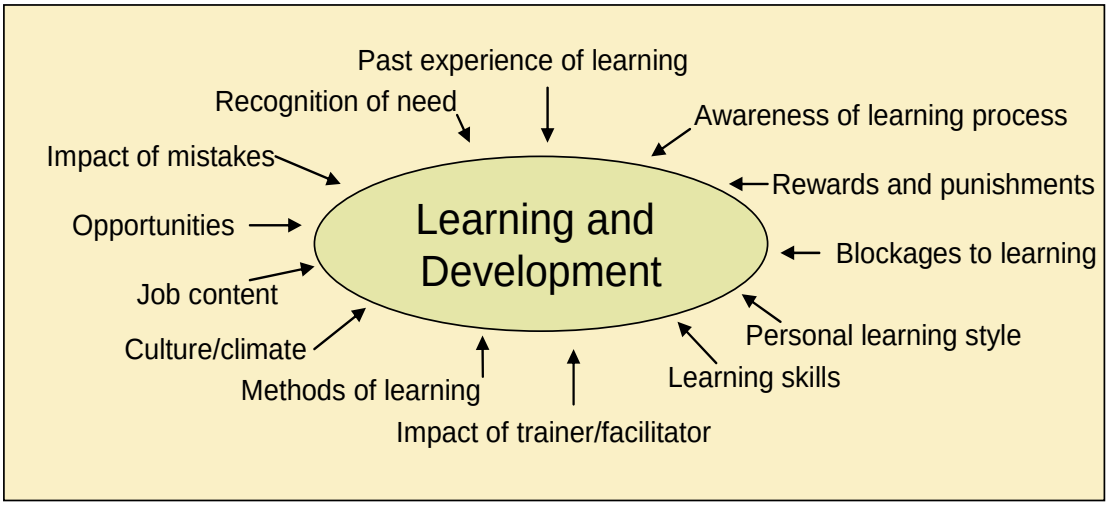

Figure 2-6: Factors which can have an effect on learning

In order to create meaningful learning experiences, trainers of adult learners have to provide opportunities for the trainees to use what they already know, and to apply

what they are learning in the educational/classroom setting. Such practices are also in accordance with an OBE approach to learning (Killen, 2007:11). A summary of adult learning principles and how they were applied in this CPD programme is presented in Appendix 2B. The aforementioned factors that may affect these phenomena need to be minimized when planning CPD programmes.

(a) Factors that affect learning

Many of the factors depicted in Figure 2-6 are of such a nature that not much can be done to decrease or limit their effect on the learning process; nonetheless they have to be acknowledged in the outcomes.

Adults are motivated to learn in different ways than younger learners and therefore learning experiences should be specifically suited to their needs (Lieb, 2002:1; Merriam, 2001:4; Wlodkowski, 2003:40). Trainers have to be cognizant of the specific preferences that are demonstrated in Figure 2-7, as they may affect the responsiveness of the trainees in the session. Such preferences are related to physical, emotional, and learning factors.

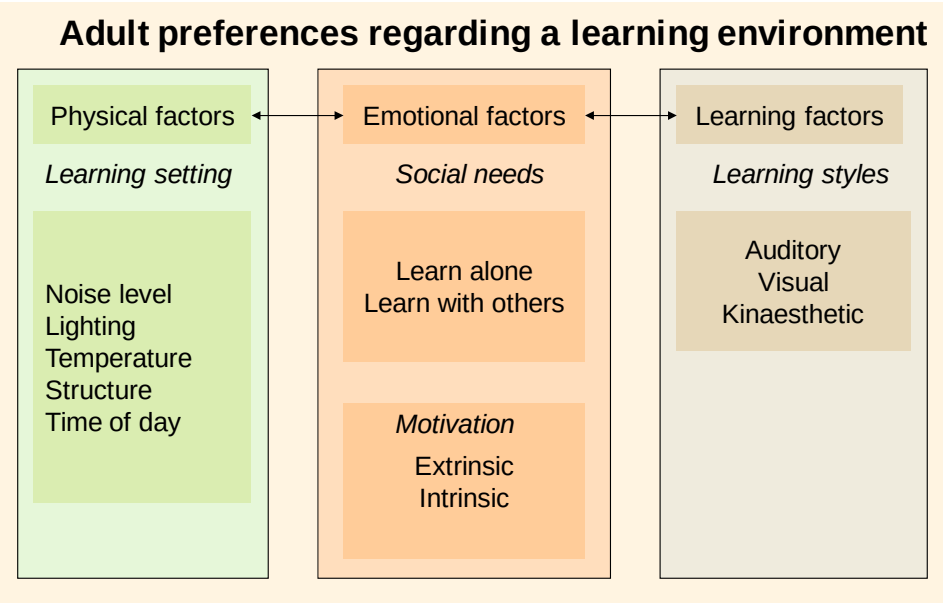

Figure 2-7: Adult preferences related to the learning environment

(i) Physical factors

Trainers (and not the trainees themselves) control most of the factors that determine whether trainees learn and therefore have to give some thought to specific preferences regarding the learning environment. When considering the physical factors (refer to Figure 2-7), the noise levels should be limited as far as possible, the room should be adequately lighted, and the temperature should be comfortable (although this may not necessarily be possible in all training venues).

The interior design of the training venue may contribute to creating an atmosphere that will facilitate communication and participation and should be suited to the specific objectives of every training situation (Pike, 1989:63; Silberman, 1996:10-12). Specific seating arrangements need to be considered to optimally accommodate smaller and larger groups, and potential restrictions of the venue need to be identified and addressed.

Smaller groups may benefit from half-round and rectangular seating arrangements as they allow trainees to have adequate visual access to the trainer, while providing a good reading and writing surface, as well as good face-to-face contact with each other (Rogers, 1989 in Imel, 1995:3). When larger groups are trained the traditional classroom seating arrangements could be adjusted to a chevron design (De Beer & Swanepoel, 1996:26).

(ii) Emotional factors

When considering the emotional factors (Figure 2-7) various activities should be utilized to create the opportunity for trainees to sometimes learn individually, and at other times in groups. It is important for the trainer to first create a safe environment where the trainees/participants have the confidence to ask questions that allow for open responses (Rogers, 1989 in Imel, 1995:3).

The trainer should strive to create an ideal learning climate characterized by a non-

threatening, non-judgmental atmosphere in which trainees are expected to share in the responsibility of their learning (Rogers, 1989 in Imel, 1995:3).

(iii) Learning factors

Each individual has a preference for the way in which he/she takes in and processes information (Bowles, 2004:2) and each person reacts differently to learning depending on his/her learning preferences. Within an OBE approach (Department of Education, 2000:3) trainers need to cater for all the different learning styles and preferences, which require adjustments to their teaching strategies. The application of action learning strategies to this CPD programme is presented in Appendix 2D. The use of such strategies will ensure that all the trainees will be included in the learning activity (Killen, 2000:xxv). Much has been published in this regard and a summary of the various learning styles and how they were accommodated in the development of this proposed programme is presented in Appendix 2A.

Professional development activities need not necessarily provide teachers with new information for professional growth, but can also *review, renew, and extend* their knowledge (Grundy & Robinson, 2004:146). It is necessary for trainees to once again commit themselves as teachers, and to take up their roles as agents of change (Bolam, 1993 in Earley & Bubb, 2004:4). Such activities for professional development provide them with the means to acquire and develop the critical knowledge, skills, and emotional intelligence that will enable them to become competent teachers, and to demonstrate "good professional thinking, planning and practices with children and colleagues through each phase of their teaching lives" (*ibid.*). Apart from considering learning styles ('how' they learn) when planning a professional development programme, trainers of adult learners also need to be cognizant of the reasons why adults learn and consider factors which motivate/de-motivate them.

(b) Reasons for participation in adult learning experiences

Adult learners are internally motivated to learn when they become aware of the purpose of the task, or can see the relevance of the learning experience (Kidd in Cyr, 1999:4). Table 2-1 depicts the reasons why adults learn and the implications for this specific professional development programme (adapted from (Mbigi, 2005:27; Pike, 1989:24; Wlodkowski, 2003:27).

Table 2-1: Reasons for adult learning and implications for this programme

Reasons for adult learning	Application to this specific programme
Learning for personal improvement and value of internal motives	Adults learn for professional growth or rise in social prestige. Hence, they have a need to gain new skills and knowledge. In this case personal progress was monitored by portfolio assignments. Adults need to see the results of their learning involvement (e.g. feedback on portfolio assignments, and a certificate that recognizes efforts).
Learning because of a cognitive interest: Learning to create and maintain interest	To improve knowledge about a certain topic in the field of interest, it is necessary to structure experiences and to apply content to life. It is important to give recognition, encouragement and approval. To motivate his/her trainees, the trainer has to be inspired and enthusiastic. It is also necessary to establish long-range objectives.
Learning to meet external expectations	Trainees want to meet external demands (e.g. NCS). Training has to be relevant and useable. The trainer provided a written report on each learner to the district facilitators.
Learning for intensified social relationships: Learning is a social process	The social process is considered to be important and therefore, learning opportunities need to be created for bonding (e.g. small groups, frequent breaks, discussion groups). Song, music and dance are powerful educational tools to keep trainees enthusiastic, and to accommodate culture. Interaction with the trainer was encouraged, and the trainer provided personal contact numbers to use when trainees experienced problems.
Learning for financial gain (goal-orientated learners)	Professional development could be the key to promotion and therefore the programme has to be of high quality and aid in career enhancement.
Learning for stimulation or escape	Participants learn in order to break routine (break boredom). It is also necessary to show the participants that the trainer expects them to enjoy learning and to view it as exciting.

Trainers of adult learners therefore are required to provide them with reasons for their learning to point out the relevance thereof. Adult learners have an innate desire to grow and learn, show a sense of curiosity, and enjoy learning new skills (Miller & Watts, 1990:31). Adults are also more likely to participate in learning programmes

when these are provided close to their homes or work, and scheduled at times which they find convenient (KiddCyr, 1999:4). The emphasis on accountability (Belzer, 2005:33; Harrison *et al.*, 2001:200; Salas & Cannon-Bowers, 2001:471) requires training activities to be cost-effective. Attrition should therefore be prevented as much as possible, and trainers need to employ strategies that ensure positive outcomes and keep trainees motivated to perform to the best of their abilities (refer to Appendix 2C) (Miller & Watts, 1990:146; Pike, 1989:24). To limit the loss of interest it is important to consider the reasons why adult learners would want to participate in a learning experience.

Several of the principles underlying each of the factors listed in Table 2-1 coincide and therefore require similar actions to be taken in the training. The trainer/researcher cannot motivate the participants, but can create an environment in which the trainees/participants can motivate themselves. In this particular programme the trainer/researcher created a need for learning by explaining why the participants need to participate in the specific learning activities, the rationale for the training programme, as well as why they need to learn these particular skills at a briefing interview. The role of culture and the accommodation of the principles of adult learning, as well as OBE, are important considerations when planning the training.

2.4.3 Integration of training components

The training of adult learners is a multidimensional endeavour that requires five components to be considered (refer to Figure 2-5): The trainer, the trainee, the content to be trained, the instruction, and the context. Effective learning however requires an optimal learning environment, and therefore specific consideration should be awarded to cultural diversity and the principles of adult learning and OBE.

It is necessary to integrate these factors within the five components related to learning (refer to Tables 2 to Table 6 in Appendix 2B) to provide the guidelines for this CPD programme.

2.4.4 Section summary

Effective learning requires a supportive environment and therefore cultural diversity, various learning styles, the principles of adult learning and the factors which motivate adult learners need to be considered. In this section the principles of OBE, adult learning, as well as culture were applied to the five components of the training environment (the trainer, the trainee, the content of training, the context, and the instruction) and practical guidelines were provided for this particular CPD programme.

2.5 Conclusion

The education transformation process addressed equity and equality and aimed to provide skilled citizens who can be globally competitive (De Waal, 2004:i). However, educational changes require professional development of teachers and therefore trainers have an obligation to ensure that their training is accountable and of a high standard (Spady, 1994b:20). The challenge to the trainer of this specific CPD programme was therefore to train the trainees in this study in the most effective manner that was based on sound training principles informed by empirical research.

In the development of this particular programme the training had to take into account those principles of adult learning that would help the participants in this study to learn (Peterson, 2001), but at the same time also had to provide for the effect of diversity in the learning context (Butler *et al.*, 2007:241). The latter required considerable reflection and in the process contributed to the personal growth of the trainer.

Considering the many commonalities that exist between the principles of OBE and adult learning, the OBE approach appeared to be most appropriate for training adult learners (e.g. teachers) in the local context. In practice it implied that the trainer had to conceptualize the principles of OBE and to customize it for the training situation (Killen, 2007:69).

The challenge of training teachers in this programme was to develop a specific sensitivity to the stark realities of the context, but to simultaneously motivate teachers to implement new teaching strategies. This required the creation of a supportive environment in which teachers as adult learners could feel comfortable to learn (Imel, 1995:3; Killen, 2000:xvi; Rogers, 1994:2).

The implementation of this CPD programme therefore required an initial preparation of the trainer to adopt a positive attitude before the planning of the programme and to maintain a positive attitude throughout the process of support in this specific context. It required that trainees be viewed as experienced and knowledgeable in their own right (Knowles, 1977:29) and be respected as professionals which is an important aspect for collaboration (Forbes, 2008:141; Moodley *et al.*, 2005:40). SLTs and teachers are required to share their knowledge and learn from each other. In this case the trainer could learn about the particular context and the current teaching practices in the implementation of the curriculum, and in turn, the teachers could acquire knowledge and skills.

Whereas this chapter explored the most effective manner in which training should be conducted to facilitate the process of learning, the focus in the following chapter shifts to the components of the specific CPD programme and the information to be trained to provide teachers with sufficient content knowledge and skills to improve their competence.

2.6 Appendices

Refer to the separate Compact Disk for the content of all appendices.

Appendix 2A *Instructional activities to accommodate learning styles*

Appendix 2B *Principles of adult learning and OBE*

Appendix 2C *Motivation and implications for training*

Appendix 2D *Action learning strategies applied to this programme*