#### **CHAPTER ONE**

# An Orientation to the Study

# 1.1 INTRODUCTION

Environmental education plays an integral role in the process of developing an environmentally literate society. Unfortunately however environmental education is often aimed at the younger school-going generation. Consequently this focus may impede a process of developing immediate solutions to a number of pressing national and global environmental issues. Accordingly it is important to recognise that *adult learning* is a key area for promoting environmental literacy and for opening doors to environmental problem solving for the near future.

However, adults who are frequently hampered by work commitments, the challenges of family life and costs associated with further education generally do not find full time post school education accessible. As such Distance Education (DE) can be an attractive option for adults, although care needs to be taken that it also provides satisfactory support to learners to enable them to succeed in their education endeavours. An amply supportive tutoring system within education can be a determinant in a learner's success. In turn a tutoring system itself must be well supported if it is to fulfil its supportive role. This research has focused on examining, assessing and improving the support given to the tutoring process within the Namibian Environmental Education Certificate (NEEC) course with the hope that such support will work towards the success of adult environmental learning.

The framework for this research is provided by the Supporting Environmental Education in Namibia (SEEN) project, which aims to produce an environmentally knowledgeable, skilled and committed population (DANCED 2001). SEEN has at its core the NEEC course - a professional development course involving adults in environment and education fields. The NEEC aims to develop a community of critical, reflective and active practitioners who educate in, about and for the environment.

Rather than 're-invent the wheel' in environmental education terms the SEEN project was guided by a suggestion to adapt the existing Rhodes University/Gold Fields Participatory Course in Environmental Education (RUGF). As the gap between education policy (both general education policy and specifically environmental education policy) and practice was identified as a major concern, it was hoped that this course could bring policy and practice closer together. In addition, the course has run for a number of successful years based on a strong research background and also a thorough evaluation (see Janse van Rensburg & Le Roux 1998). It was thus agreed that the RUGF

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course would form a suitable base for a Namibian version (DRFN 2001). The Namibian re-developed and implemented version moreover envisaged the course as answering the specific needs of environmental education practitioners locally. This last point is especially important because, until the time of the NEEC course there were few environmental education learning opportunities available in Namibia.

However, as is often the case with courses taken out of their original contexts (O'Donoghue 1989: 16; NEEC 2003: 10), a number of problems have arisen. This study focuses on the issue of tutoring in a part-time environmental education course delivered in a semi-distance mode and in particular draws attention to the need to support tutoring. Moreover, it is speculated that tutoring challenges have arisen due to transferring a South African tutoring approach into a different context without the associated infrastructure and support of the people closely associated with the RUGF. Hence by investigating the challenges of tutoring it is hoped tutoring in the NEEC will be strengthened and in doing so contribute to course sustainability, both of which would ultimately benefit both Namibians and the Namibian environment.

# 1.2 MOTIVATION FOR THE RESEARCH

The need for a healthy environment now and in the future for the benefit all Namibians, is clearly stated in numerous Namibian government policies. An example of this is Article 95 of the Namibian Constitution (1990) and resulting policies, plans and acts e.g. National Development Plan 2 (2001), Namibia's Green Plan (1992), National Population Policy for Human Sustainable Development (1997), Sea Fisheries Act (1992), and the Namibian Environmental Education Policy (1999) to name just a few. Additionally, Namibia is signatory to a number of international conventions and declarations, among them the Basel Convention, the Convention to Combat Desertification, Climate Change and Biodiversity Conventions, and Agenda 21 (UNCED 1992). Namibia has officially committed itself to uphold the ideals associated with a healthy environment within each and every policy, plan, act, convention and declaration, not only for national but also regional and global environmental benefit.

However, environmental degradation within Namibia today is still a reality. Thus despite the importance of environmental education for addressing environmental issues (Agenda 21, UNCED 1992), there are still major limitations to its implementation and practise, thereby limiting powerful processes to reverse or stop degradation. These limitations are considered a national cross-sectoral problem, with formal and nonformal/informal education sectors suffering equally from theory-practice (praxis) problems (DANCED 2001: 6, 15). In response, the Namibian Government is committed to the principles underlying sustainable development, which includes maintaining a

healthy environment for all (Article 95, Namibian Constitution). As a result of these commitments, the importance of including environmental learning within educational policies is also taken seriously.

However policies, in particular those in the education sector, are generally not adequately implemented (DANCED 2001) as guidelines provided by these policies are often misunderstood or inappropriately applied. Of particular concern to this study is the application of environmental education as outlined by the Namibian Environmental Education Policy (NEEN 1999) and the Pilot Guide to the Broad Curriculum (MBEC 1996) within education sectors. This policy, although more than five years old (from initial draft to the current form), has to date not been officially adopted or implemented by any education or environmental ministry of Namibia.

Environmental learning promoted in education policies and generally endorsed in southern Africa involve a learner-centred approach, which in turn is underpinned by an orientating theory of social constructivism. These educational ideals are often in contrast to what environmental education practitioners perceive as 'good education' and how they implement the theories that scaffold their practice. The matter is further complicated when examining the Ministry of Basic Education and Culture's guideline 'Pilot Curriculum Guide for Formal Basic Education' (MBEC 1996) as it too does not sufficiently engage with learner-centred principles (Kristensen 1999b). Such difficulties in interpreting and applying educational policy into appropriate practice may thus serve to impede education reform through inappropriate teaching and learning strategies.

With this issue comes the reasoning that in order to rectify the problem we need to look at our environmental education practitioners and begin to work with them in a way that is relevant, meaningful and appropriate to both them, and the Namibian situation, so that they can begin educating for a better environment. Accordingly the NEEC course has been developed to help environmental education practitioners with understanding the root cause(s) and impact(s) of environmental issues and to examine the various responses to these environmental issues. In particular environmental education as a response is investigated in-depth. This includes interpreting guiding education policies and in particular environmental education conventions, declarations and policies and articulating these into better practice for the environment.

In doing so, the NEEC tutors play a supportive role in the process of interpreting text into practice, and in mediating curriculum deliberation, both of which can be challenging tasks. Support of such tutors to facilitate these learning processes is thus imperative. It is hoped that this research can assist tutors who work with environmental practitioners and the general public, as well as the tutoring process within an appropriate educational framework informed by current adult learning theories and

the Namibian education reform process. If the tutoring process is strengthened then NEEC participants may hopefully have a better opportunity to implement policy in practice hence improving the work they do in, about and for the environment.

However it is acknowledged that Namibia does not have many suitably qualified, willing and able persons to help with tutoring (Van Harmelen, Jafta and Hamunyela 2003: 12). This problem is further compounded when we see that the tutoring process has not worked well in RUGF courses where the tutors have not been highly motivated and committed environmental education practitioners. (O'Donoghue personal communication 2003). Without these kinds of tutors, the course has a possibility of collapsing early in its life. As a result, it is hoped that this research can begin to investigate how best to support tutoring so that the course is suitable to Namibian situations thus allowing it to continue into the future.

Equally important is the need for research regarding quality assurance within tutor-supported courses, as this will contribute to course sustainability. Obviously a quality course should attract participants and hence generate funds for course sustainability. Quality in tutoring also ensures that accrediting institutions uphold their reputation in the academic arena. As most participants of the NEEC course indicate their desire for the course to be accredited (Fröhlich & Shilunga 2002) this research strives to further the development of quality assurance in tutoring within the NEEC and thus continues to attract participants.

In view of the motivation given above, it is envisaged that this study could help inform part-time, semi-DE courses in strategies to do with tutorial support if, and when, support of this means is desired.

# 1.3 PROBLEM FORMULATION

The RUGF course, on which the NEEC is based, was written with the understanding that tutors would support participants and would also contribute towards ongoing course development and implementation (Janse van Rensburg & Le Roux 1998: 48). In consequence tutors need to be competent in a number of areas and fulfil roles and responsibilities directly related to course planning and delivery, administration, assessment and general learner support (see Section 2.4). Tutors are also required to mediate learning in a way conducive to the key orientating principles of the course and to model course key ideas or concepts (SEEN 2002a, van Harmelen 2002b). As a result, the tutorial approach taken by NEEC has become quite formalised and extensive, which in turn demands a large investment of NEEC tutors' time and energy. This is especially so as it is often the first time they tutor in the course and many are, for the main part, volunteering their services.

Janse van Rensburg & Le Roux (1998:48) assert that the course stands or falls on the strength of its tutors. Lotz (cited in Janse van Rensburg & Le Roux 1998:98) affirms that tutors contribute to the level of success the course experiences. Accordingly, if such emphasis on the importance of tutors within the RUGF course were true, it would be reasonable to expect that tutors and more specifically the tutoring process be supported accordingly. However, this does not seem to be the case (Molose 2000, Raven 2003).

In terms of the RUGF course, Raven (2003: 25) has shown that tutorial support is a key area in which the course needs improvement. She states that tutors need more explicit *professional development* support if they are to provide participants with opportunity for:

- participation
- in-depth critical engagement with the texts and discussions
- challenging own and others ideas and practice and
- for participatory and process learning.

Molose (2000: 97) suggests that if tutors do not have the necessary experience and tutoring skills, then strong continuous tutorial support should be provided to ensure that a vicious cycle of inadequately prepared participants and future tutors does not arise.

In 2002, the SEEN project's Technical Advisers<sup>1</sup> (TAs) were the nominated tutors for the NEEC as no suitably qualified and willing persons applied for the positions in Namibia (Van Harmelen et al 2003: 12). Several problems have arisen related to this predicament, which in turn, were further related to the TAs neither being familiar with, nor having participated in the RUGF or the NEEC courses. These constraints have in turn hampered the smooth implementation of the NEEC. This was because tutors were constantly trying to keep 'one step ahead' of participants by learning the course before, or sometimes with, their participants as well as having to act in a tutoring role. This was not an easy task considering the magnitude of the course and the fact that they also had to fulfil other job responsibilities. As such, TAs overwhelmingly state that they believe that they could have done a much better job of tutoring had they been through the course previously (Melgaard & Rasmussen personal communication 2003).

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<sup>&</sup>lt;sup>1</sup> The Technical Advisers of the project were employed to support various environmental education activities, with professional development as <u>one</u> of these. Four of the five TA's are expatriates from Denmark and Australia. Hence the TAs may not be available to support the NEEC after 2004.

Therefore, related to the above background to and motivation for the study the following problem statement is identified:

How can tutoring be better supported within the Namibian Environmental Education Certificate course?

To deal with this main problem effectively, the following sub-problems were formulated:

- (1) How is tutoring currently supported within the NEEC?
- (2) What problems within tutoring can be identified?
- (3) Where and why do problems/challenges arise with the current tutoring process?
- (4) What further support is needed with tutoring in relation to the problems/challenges experienced and,
- (5) How can tutoring be managed in the future to provide better support?

# 1.4 THE AIMS AND OBJECTIVES OF THE STUDY

#### 1.4.1 The research aim

This research aims to investigate the NEEC tutoring process to suggest ways for supporting tutoring, thus enhancing participants' environmental learning and ability to support the environmental learning of others.

In addition, the aim is to determine if there are more appropriate/alternative ways to support tutoring.

# 1.4.2 The research objectives

Research objectives therefore are to:

- 1. Examine how tutoring is supported in the current RUGF and the NEEC courses.
- 2. Explore problems/challenges that arise within the tutoring process.
- 3. Ascertain what further support of tutoring is needed within the NEEC to overcome the problems/challenges identified.
- 4. Suggest appropriate approach(es) for how tutoring can be managed in future years to ensure course quality and sustainability.

# 1.5 CONTRIBUTIONS OF THE RESEARCH

At the time of this study, across the family of the RUGF courses i.e. RUGF adaptations (See Section 2.2.4) there has been minimal detailed investigation into the support of tutoring even though the importance of such a dimension is often referred to (Raven 2003; Molose 2000 and Janse van Rensburg & Le Roux 1998). During the course of research into several of these programmes, tutoring

challenges are mentioned time and time again but with minimal reference or suggestions to a way forward. For the most part it appears that proposed solutions to tutoring issues have been devised in isolation and without much thought on how courses in different contexts may be affected. The 'Tutors Support Booklet' developed for the RUGF course (originally by Louw 2001 and adapted by Rhodes University 2003) has been one way to help with tutoring issues, however it too has not been made an official guiding document nor has it been formally evaluated in any real sense. This document is also based on South African contexts and has served mainly as a background. By 2003 the booklet had not been distributed to tutors in the South African RUGF course (Chadwick personal communication 2003). It was also not mediated with the NEEC National Coordinator so consequently many tutors in both the RUGF course and the NEEC may not have had access to the information contained in it. Seemingly therefore, tutor support has not been given the attention it so sorely needs, particularly when considering the different contexts of courses outside South African borders.

Furthermore, as the NEEC is required to present a sustainable course ready for housing at the accrediting institute (the Polytechnic of Namibia) at the end of the project period (September 2004), an investigation into the most appropriate and effective way of supporting and delivering the course must be finalised. Subsequently without a stable and well-managed tutoring system there is a real danger of the course tripping up on the same tutoring problems year after year. As the course is intended to be delivered in the most cost effective way whilst still providing the best and most appropriate support to both its participants and tutors (given the limitations of tutoring as highlighted in this study) recommendations of the most appropriate way of managing and supporting tutoring is of utmost importance. The highlighting of these recommendations could also better support those who intend to implement or who are already implementing a part-time semi-distance course and ultimately enhance processes of environmental education learning.

# 1.6 RESEARCH METHODOLOGY AND DEMARCATION OF THE FIELD OF STUDY

This research is located in the post-positivist, interpretative, social sciences paradigm (Terre Blanche & Durrheim 1999). In doing so the study focuses on the individual's meaning making in context, and is thus interpretive (Gerber 1996: 13).

The research methodology follows that of a naturalistic inquiry and in doing so tutoring is investigated in natural settings and issues allowed to unfold without any interference from the researcher. Additionally, multiple 'realities' of tutors are acknowledged and further investigated whilst analysing data. In doing so theories are allowed to naturally emerge from the data (grounded

theory). The data is also recontextualised to gain a holistic view of the tutoring challenges (for further detail on methodology see Section 3.2).

The research group for the study is composed of:

- the original six tutors' of the NEEC
- the five SEEN project TA's who are support tutors and/or tutors
- the National Course coordinator/developer of the NEEC (who is also the researcher involved in this study)
- the Rhodes University/ Gold Fields Environmental Education Chairperson, and
- the support person for NEEC from the Wildlife and Environment Society of South Africa (WESSA) Regional Environmental Education Centre (REEC), who was also a tutor on the RUGF course in 2001/2.

Thus people who have been involved with the RUGF course or the NEEC were selected as the research population.

These inputs lead to the development of a descriptive case study, which provides details of the interrelationship between people, institutions, events and beliefs (Weiss 1998: 261) as well as the dynamics of the teaching, learning and tutoring processes that characterise the NEEC. Hence how the NEEC course is experienced is investigated in light of participants' "lived experience" (Payne 1997) and current tutoring challenges. As a result, the study occurs within a natural setting where the boundaries between the phenomenon and its context are not clear and is thus based on the use of multiple sources of evidence (Yin cited in Weiss 1998: 261).

A number of data collection techniques are used in line with the naturalistic orientation of the research. These include focus group and individual interviews using unstructured and semi-structured questioning approaches (Fraenkel & Wallen 1996, Euvrard 2001), open-ended questionnaires (Cohen & Manion 1994: 92-97, Irwin 2001:9), participant observations (Cohen & Manion 1994: 107-110) of tutoring during regional tutorial (face-to-face) contact sessions, and investigation and analysis of documents that include course files, photographs, reflections, minutes, reports and records of past research. These techniques are examined in more detail in Chapter Three. Data collection occurred over a period of nine months between February and October 2003.

A qualitative approach to data analysis is utilised, in particular, focusing on grounded theory. This is done intentionally to discover themes emerging directly from the data gathered rather than from other research or existing theoretical frameworks (Taylor & Brogdan 1998: 136-137; Tilbury & Walford 1996: 55). This research theory is considered especially important in view of the lack of data or information available concerning the support of tutoring processes in semi-distance courses.

#### 1.7 CHAPTER OUTLINE

Chapter One sets the scene for the study and in particular provides motivation for the research, outlines the research problems, and aims and objectives. Additionally it briefly describes the contributions of the research and research methodology. Lastly this chapter will discuss a number of important concepts frequently used in the study to offer the reader a frame of reference from which to make links and think further.

Chapter Two orientates the reader to the context from which this research arose by exploring the background of education and in particular environmental education in Namibia and its influence on development of the SEEN project from which the NEEC originated. It also describes the origin of the NEEC as related to the RUGF course and to the SEEN project developmental process and outlines the history of the RUGF and the adopted and/or adapted versions of this course. A brief review of the concepts of DE, semi-distance education and tutoring is given to offer the reader some insight into the framework from which the teaching and learning strategy of semi-distance education courses such as the NEEC has arisen. From this discussion the deliberation of the need of tutoring and tutorials, and their various approaches within DE courses are summarised. Such discussion leads to the description of the RUGF delivery modes and tutoring processes and the NEEC background structure and delivery mode. This chapter lays a foundation for the review of the NEEC in context with special emphasis on the tutoring aspect. Thus as this chapter deals with the theoretical background of the topic understudy and gives the contextualised 'thick description' of the RUGF and NEEC, it provides a wide-ranging view of tutoring in DE situations.

In Chapter Three, a description of the research methodology, design, collection and data processing techniques are dealt with. This chapter also outlines the issues of validity in this study.

Chapter Four provides a review of the NEEC tutoring process in terms of its structure, delivery mode, tutoring process, training and professional development of the NEEC tutors. The challenges experienced with/in tutoring as related to the above themes are also discussed. These results of the tutors' challenges are outlined using the principles of "Grounded Theory" (Taylor & Brogdan 1998: 136-137; Tilbury & Walford 1996: 55; Arksey & Knight 1999: 162). In this way challenges emerge from the study rather than pre-determining problems.

The last Chapter, Five, analyses the findings as outlined in Chapter Four, against the background of the theory outlined in Chapter Two. From this discussion, conclusions regarding the support given to tutoring processes are made and recommendations for the future NEEC infrastructure and

management offered. This chapter also outlines the limitations of the study and identifies possible areas of tutoring that require further research.

# 1.8 CONCEPT CLARIFICATION

To introduce the key concepts of this study and attempt to build a framework from which the background and results can be understood, major concepts are outlined. The concepts include:

- semi-distance education
- a part time course
- environmental education
- tutoring
- support
- adult learning
- education research
- environmental education research, and
- professional development as opposed to training.

Note: Two of the above concepts, semi-distance education and tutoring are described in more depth in Chapter Two. However the use of the concepts 'professional development' as opposed to 'training' is emphasised in this section as there are differing views of these concepts that need to be outlined and clarified early in this research.

# 1.8.1 Semi-distance education

In the sense of the NEEC course, semi-distance refers to the mode of delivery. The NEEC is delivered in both distance and face-to-face modes. The course therefore envisions learning occurring both during contact sessions and also when the participant is at home/work. The guidelines for the course strongly encourages the participant to learn in their home environments through working on the course texts, readings, activities and assignments found in the course file or as agreed with the tutor (NEEC 2003). This learning away from the contact sessions is therefore the 'distance learning' component of the course.

As the NEEC employs both distance and face-to-face modes, the combination is deemed semidistance education. (See Section 2.3.2 for more detail on this concept)

#### 1.8.2 A part time course

The course is part time in that it does not expect the participant to study on a full time basis throughout the period of the course. The RUGF course, on which the NEEC is based, consists of 240

credits and hence 240 notional study hours. Of this, one third of the time (approximately 80 hours) should be spent on contact sessions, one-third on reading and one third on assignment work. Therefore it requires the participant to spend approximately five hours per week on course work and is thus "part-time".

# 1.8.3 Environmental education

In clarifying the concept of environmental education, it is not the intention to 'close-down' the definition and therefore limit its use. For purposes of this study, environmental education is seen as:

...a range of diverse educational processes through which we might enable ourselves and future generations to respond to environmental issues in ways which might foster change towards sustainable community life in a healthy environment.

(Janse van Rensburg & Lotz 1998: 51)

#### 1.8.4 Tutoring

The definition of tutoring refers to the acts of a tutor i.e. to do the work of a tutor. To tutor (vb), as defined by the Merriam-Webster Dictionary (www.merriam.com Accessed 15 July 2003) is: "to teach or guide usually individually in a special subject or for a particular purpose". Therefore this study sees tutoring as the processes that occur, or are expected to occur, in order to facilitate the NEEC participants' environmental learning (see Section 2.3.4 for more detail on this concept).

#### **1.8.5 Support**

According to the Readers' Digest Oxford Dictionary (1998: 835), support (vb) means: 'to enable to last out; give strength to'. In this study, *support* therefore refers to those elements or phenomena that can strengthen tutoring, in order to sustain them effectively.

#### 1.8.6 Education research

Janse van Rensburg (2001a: 3) defines research as "a way of going about finding answers to questions...it entails processes of producing new public knowledge using methods systematically in ways that are open to public scrutiny in a community of peers". Education research is therefore defined as research, which has "a systematic instruction" (Reader Digest Oxford Dictionary 1998: 699) as its focus, with the researcher being a person who is interested and concerned with educational policy and practice.

#### 1.8.7 Environmental education research

Environmental education research draws from education research however the focus is within the field of environmental education. It is education research primarily with an environmental education problem or issue at its heart.

# 1.8.8 Adult learning

In the Namibian "National Policy on Adult Learning" (GRN 2003: 6), adult learning is defined as:

The entire range of formal, nonformal and informal learning activities undertaken by adults and out-of-school youth, which result in the acquisition of new knowledge, skills and attitudes in order to enhance the quality of life.

The use of the term 'adult learning' rather than 'adult education' is intentional as 'adult learning' implies deliberation and choice of learning by participants, as defined by Lotz (1999: 57). The researcher believes that 'adult education' has connotations of a one way instrumentalist educational process, i.e. predetermined knowledge being educated *from* the educational institution or 'expert' *to* the adult. The NEEC course subscribes to the view of adult learning rather than adult education due to the acknowledgment of 'we are all educators and learners' and that learning is a 'lifelong learning' process.

#### 1.8.9 Professional development as opposed to training

Throughout this study, professional development or development has often been used in the place of, or additional to the concept of training. This has been intentional because of the underlying meaning training supposes.

Training is defined by 'The Condensed Oxford English Dictionary (1989: 2094) as "a systematic instruction and exercise in some art, profession or occupation, with a view to proficiency in it". Therefore training falls beneath a vocational/neoclassical orientation (Fien 1993) and follows a technicist approach whereby practical competencies ('skills') are taught *to* learners. In this case learners are viewed as 'empty vessels' and are taught what is considered necessary knowledge and skills. In such an approach the status quo within society is continued, and questioning of this status quo is not encouraged. In short, the aim of training learners is to fit them within a vocational/neoclassical framework and in the process uncritically accept existing social structures (Janse van Rensburg & Le Roux 1998: 101).

This view is in contrast to the NEEC orientation and hence is not used to any great extent within this study. However training has been used in some instances as various research subjects use the term training as if it is synonymous with development. In these cases training will be encompassed with single quotation marks. Additionally, training has been used in some cases as 'systematic instruction' is a necessary part of development.

In contrast, professional development within this study deals with the education and development of persons within their professional or work capacity. In terms of the RUGF course on which the NEEC is based, professional development draws strongly on orientations within the socially critical

framework (Janse van Rensburg & Le Roux 1998: 101, Fien 1993). "This orientation includes a praxis-related perspective of professional development and involves a realisation that knowledge is socially constructed, taking into account the historical and sociological context, the development of political awareness, and the notion of theory-in-action" (Janse van Rensburg & Le Roux 1998: 101.). The 'usual way of doing things' is questioned and critically analysed in favour of finding out the underlying reasons for our practice, or in other words, examining our practice in the light of underlying theories. The hope is that in doing so social justice and equality will be promoted through learners "critically examining social problems and actively participating in improving society" (Janse van Rensburg & Le Roux 1998: 102). Table 1 below gives an overview of both training and professional development characteristics and also serves to compare both.

**Table 1** Training as compared to an ideal model of professional development

Training	Professional development
Often externally designed with little regard for	Should take into account the contextual
contextual realities	realities within which participants live and
Makes no allowances for feedback	work
Focuses on the transmission of information	It should build on prior learning experience
rather than the building of skills and	Should focus on building skills, competencies
competencies	and attitudes and not just on the transmission
Train-the- trainer or a cascade model has a	of knowledge
tendency to multiply or retain errors that are	<ul> <li>Should provide opportunities and space for</li> </ul>
"passed down the chain"	participants to grow according to their own
Allows no time for reflection	needs and at their own pace
<ul> <li>Does not provide opportunities to clarify,</li> </ul>	Should be based on policy and on participant
reflect or practise in the field	professional development goals
Often based on the 'lecture' method	Should enable participants to build up
Can be very theoretical	increasingly sophisticated understanding of
<ul> <li>Provides little or no assistance in the field.</li> </ul>	their work and context.

(source: adapted from Squazzin & du Toit 2000:17)

Leach (in Mills & Tait 1996: 101) views professional development as a career-long process that cannot be limited to one single event or course of study but should rather be considered a continuum. Leach (ibid.) also supposes that professional development must "almost always include periods of supported training, study or research". Hence professional development is much more broadly defined in this study and encompasses periods of training.

In light of the NEEC, both tutors and participants are considered learners and their professional development is facilitated through a process based on the socially critical orientation of the course. However, whereas the professional development of course participants is mainly within the field of environmental education, in terms of tutors, the professional development process is seen as twofold. Firstly tutors can extend their professional development within the area of environmental education and secondly, because they may not have much experience, within the tutoring role itself.