

CHAPTER 2

METHODOLOGY

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CHAPTER 2 METHODOLOGY

2.1 INTRODUCTION

In this study, the aim is to determine the criteria for developing appropriate materials in order to develop the proficiency in Afrikaans of Grade 12 additional language learners. Knowledge so gained will assist in developing, implementing and evaluating materials in the subsequent intervention process. This chapter sets out to reflect on the methodology of this study, on how the research was planned and conducted. Hussey and Hussey (1997: 54) define methodology as the “overall approach to the research process, from the theoretical underpinning to the collection and analysis of the data”.

In this chapter I will first reflect on the research process employed in this study, since it normally is a sequential process involving several clearly defined steps, which ensures that the study remains methodical and orderly as it unfolds. The way in which the steps in the research process are structured gives an indication of the direction that the research will take. Consequently, consideration will also be given to the research approach (e.g. the choice between qualitative and quantitative), and the research design, which involves research methods, data collection techniques and the analysis of the collected data.

Furthermore, this chapter also sets out to explain why exploratory research and action research have been chosen as the two research methods used in this study. The discussion of the multi-method approach adopted here will concentrate on the implementation of exploratory and action research in the study. In addition, the four stages of the action research cycle as implemented in the study will be discussed.

2.2 THE RESEARCH PROCESS

A theoretical framework of the research process was developed to guide the research process, and encapsulates the methods used in this research. The different steps in the research process are outlined in Figure 2.1.

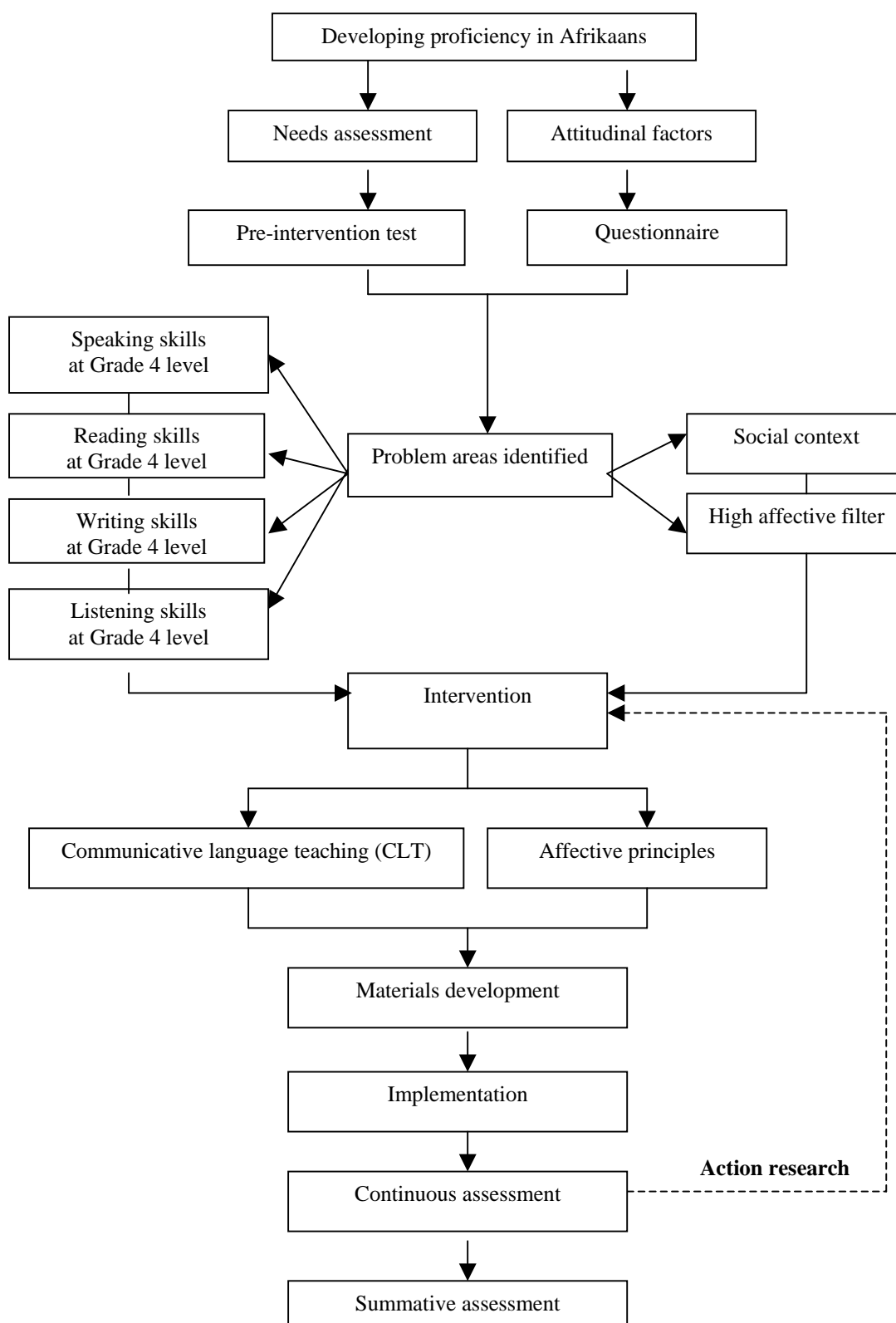


Figure 2.1 Framework of the research process

It must be noted that although the steps outlined in Figure 2.1 are an indication of the research process followed in this study, each step does not require completion before

going on to the next. Also, some of the steps in the process do not exist in isolation, and are carried out simultaneously.

The research process starts initially with the generation of the research idea that constitutes the aim of the study, as discussed in Chapter 1. From this, a sequence of steps to meet the research objectives (Chapter 1, section 1.4) gradually emerges. The objectives address the purpose of the research and derive from the background (Chapter 1, section 1.1) and the factors motivating and initiating this research (Chapter 1, section 1.2).

A comprehensive literature review was undertaken to establish a theoretical foundation for the study, and was one of the earlier steps in the research process. However, the literature survey continued throughout the research process to enhance subject knowledge and to clarify questions that arose. Saunders, Lewis and Thornhill (2003: 44) describe this process as an “upward spiral, culminating in the final draft of a written critical literature review”. The literature survey undertaken in this study has indeed followed the sequence of defining the parameters of the research, generating key words, undertaking of the first literature search, followed by evaluation and recording of the relevant information. The first search enabled further redefining of parameters, and subsequently undertaking additional literature searches, in order to focus more specifically on relevant data, and on refining the research question(s) and objectives.

Secondary data in the study refer to existing data collected by means of a comprehensive literature review which comprised:

- gathering a wide range of data and impressions to serve as guidelines to determine criteria for designing and developing materials (objective 1.4.3);
- conducting a thorough literature survey to determine the appropriate teaching methods (objective 1.4.4);
- conducting a literature study to determine the influence of affective variables (objective 1.4.5);
- establishing what learning and teaching materials are currently available (objective 1.4.6).

As indicated in Figure 2.1, one of the early steps in the research process is to engage in needs assessment. Bond (1991: 186) states that needs assessment is done in situations where there is a “feeling that things are not as they should be”, and therefore a need for information, and a need to clarify goals arise. Needs assessment is thus concerned with problems that need to be addressed, and once the needs have been established, programmes can be designed to address the problem areas (cf. Cozby, 1993: 10; Rothwell & Kanzanas, 1994: 79; Dick & Carey, 1996: 18). In this study assessment of the Afrikaans proficiency of the learners was essential as a starting point of the research process in order to identify the problem areas, and to provide valuable insight into the kind of teaching and the appropriate materials to be utilised during the intervention. The envisaged remedial teaching also called for needs analyses in terms of functional language needs, along with the practical implementation of its instructional counterpart, Communicative Language Teaching, and this will be the focus of Chapter 3. Furthermore, the fact that Afrikaans is being taught as an additional language although it is not spoken on a regular basis in the local community (Chapter 1, section 1.2.1), called for an assessment of attitudinal factors, especially the learners’ attitude towards, and motivation to learn, Afrikaans. The influence of affective variables in second language teaching and learning will be examined in Chapter 4.

The methods of needs assessment depend to a large extent on the nature of the research, and the amount and type of information needed. McDonough (1998c: 229) comments on the complexity of needs analysis, as the process involves a variety of data sources, and therefore a “wide range of variables both in the target context and the learning environment should be taken into account”.

We next turn our attention to why a multi-method research approach was employed in the study. The nature of this study called for different needs assessments, i.e. language, emotional and contextual needs. I favoured a multi-method approach, because the use of either only a quantitative or a qualitative method will, as Webb (1991: 158-159) has commented, “show the researcher only one side of the topic”, whereas with the triangulation that becomes possible when a multi-method approach is used a “more full, rounded and valid picture” is obtained. Thus, triangulation

permits more than one method or approach to be used in data collection, analysis and comparison of results in a variety of settings in order to study the same phenomenon, and to provide convergent evidence (cf. Hunt, 1991: 126; Saunders, Lewis & Thornhill, 1997: 80; McDonough, 1998b: 126). Webb (1991: 161) reinforces this point by arguing that the use of several different methods in a triangulated approach allows the researcher to “cross-check” the data to provide a complete and full picture.

Before we consider the rationale of using both exploratory and action research in the study, however, let us first pay attention to the sampling methods that were used.

A non-probability sampling design is used in this research. Firstly, the research involves accidental or availability sampling. Bless and Higson-Smith (1995: 94) refer to this kind of sampling as accidental or availability sampling, because it involves “all the cases on hand”. Since this study was motivated and initiated by the research project the TSA researchers initially embarked upon (Chapter 1, section 1.2), it was a foregone conclusion that the same group of 86 Grade 12 learners in this study would be the sample.

2.3 EXPLORATORY RESEARCH

In exploratory research the focus is on gaining insights into and knowledge about the subject area, the practical possibilities and the definition of some concepts (cf. Bless & Higson-Smith, 1995: 42-45; Hussey & Hussey, 1997:10). Thus, a particular area is explored to discover what has already been established, to attach meaning to the discoveries and to establish how to organise the discoveries. According to Robson (1993: 42), the value of exploratory research can be seen as to establish what is happening, to ask questions and to seek new insights.

In scientific disciplines concerned with people the emphasis often is on a qualitative approach. Webb (1991: 157) describes qualitative research as “interpretive science” because its “goal is understanding rather than control”.

This study is concerned with the nature of the additional language proficiency of Grade 12 learners in Afrikaans, as well as with the learners’ attitude and motivation to

learn Afrikaans. This suggests that a qualitative approach is required, for instance to gain a better understanding of attitudinal factors influencing additional language teaching and learning, and to provide insight into remedies to be instituted.

The decision to employ exploratory research in this study arises from a need to develop appropriate materials in a scarce resource environment to enhance learners' proficiency in Afrikaans as an additional language. Because exploratory research allows a degree of flexibility, it enables a researcher to follow through a new lead, and to move the research into new areas as the study proceeds (Carter, 1991: 181). Thus, a number of general considerations that influence materials development, as well as conditions conducive to learning an additional language, were taken into account and utilised during the intervention programme.

Despite the obvious value of the aforementioned exploration in this research and the qualitative data approach described above, this study also called for gathering a wide range of primary data and impressions in order to broaden scopes and insights, and to apply new-found knowledge. Statistical techniques were used to summarise the information of the quantitative data collected. The applied data collection techniques in the research are discussed more closely below in section 2.4.3. A discussion of how quantitative data collection will be employed in the study follows.

2.3.1 Assessment of learners' proficiency in Afrikaans

As indicated in Chapter 1, the original TSA research project comprised collaboration with the University of Pretoria's Unit for Language Skills Development that was responsible for the assessment procedure. The pre-intervention test comprised the use of the *ELSA Intermediate Diagnostic* assessment as a standardised, reliable and valid assessment instrument. *ELSA* is an acronym for English Literacy Skills Assessment. The Afrikaans version is called *EVAT*, and assesses the language competency-input levels of the respondents with educational levels above Grade 10. The assessment comprises a pencil-and-paper group assessment. *EVAT* both quantifies and diagnoses the results. The scoring is objective and the functions are mastery, survey and diagnostic.

The diagnostic assessment indicated the group of Grade 12 learners' strengths and weaknesses, as well as areas for remedial action (Appendix B and Chapter 5). As indicated in Figure 2.1, a problem area identified was that the learners' functional Afrikaans literacy was poor, since the learners' speaking, reading, writing and listening skills were at Grade 4 level on average. The diagnostic assessment enabled me to compile and implement the intervention programme, and to focus on the areas identified (objectives 1.4.1 and 1.4.2). This process will be discussed in detail in Chapter 5.

At the end of the process, an *EVAT* post-test was conducted to ascertain the success of the intervention (objectives 1.4.8 and 1.4.9). A comparison between the results of the pre-intervention (Appendix B) and the post-intervention assessment (Appendix C) shows that, in most cases, the learners made considerable gains. Chapter 5 contains a more detailed discussion of the quantitative research methods employed, in order to examine, evaluate and interpret the results of data gathered.

In addition, the extent and complexity of the influence of affective variables presented a major challenge in the study. In the context of the research, it meant, among other things, that information needed to be gathered about the learners' motivation and attitude to learn Afrikaans in a township school. Analysis of the questionnaire on affective factors (Appendix A) sheds some light on conditions necessary for successful learning. At the end of the intervention, an additional questionnaire (Appendix F) was administered and analysed to obtain the learners' perceptions of the intervention classes and the effectiveness of the intervention programme as a whole (objective 1.4.9). We turn briefly to questionnaires as data collection techniques below in section 2.4.3.1, before considering the analysis of this information in Chapter 4 and Chapter 7.

A discussion of action research as the second research method in this study follows.

2.4 ACTION RESEARCH

Kurt Lewin's statement "There's nothing so practical as a good theory", formed the basis of his research approach, which has become known as 'action research'

(Melville & Goddard, 1996: 5). Though widely accepted as a valuable research method, action research is understood and interpreted differently by researchers, and therefore different aspects may be emphasised.

Saunders, Lewis and Thornhill (2003: 94) indicate that action research differs from other forms of applied research because of its “explicit focus on action”, in particular the aim to endorse change. Action researchers, in the view of Carr and Kemmis (1986: 183), adopt a more “activist view” because they aim to “transform the present to produce a different future”. Therefore, a researcher who employs action research as a research method, not only intends to describe, understand and explain, but also attempts to bring about change to the problem situation, and to monitor the results (cf. Webb 1991: 155; Hussey & Hussey, 1997: 65; Saunders, *et al.*, 2003: 94).

When is action research appropriate? Action research presents an opportunity to investigate the identified relevant and important issues, and simultaneously allows the development of critical and reflective thinking, while exploring practical problems (cf. Hunt, 1991: 125; Wallace, 1991: 56; Webb, 1991: 155).

2.4.1 Action research in the classroom setting

Since the main concern of this study is to determine the criteria for developing appropriate materials to develop learners’ proficiency in Afrikaans, it is necessary to consider action research in the classroom setting. According to Davidoff and Van den Berg (1990: 28-29) action research presents teachers with an opportunity to research and to reflect on activities in the classroom in a systematic way. At the same time it allows them to try out ideas, to make changes or improvements, and to increase their understanding and awareness of their teaching practice.

When one takes the aim of the study into account, it becomes clear why action research provides an appropriate research method for this particular problem. With the problem areas identified, viz. the learners’ poor speaking, reading, writing, and listening skills, as well as the social context and learners’ high affective filter, appropriate materials need to be utilised, or developed to enhance the learners’ proficiency in Afrikaans during the intervention.

In order to address these problem areas, action should be taken to determine the criteria for developing appropriate materials. This action entails a cyclical process of planning, acting, observing and reflecting. Thus, the materials used during every intervention class form the basis for the action research, while the research objectives are consciously tested by implementation, observation, and reflection. Furthermore, in order to refine materials that will enhance the Grade 12 learners' proficiency in Afrikaans, it is necessary to employ several cyclical processes of action research. The different stages of the action research cycle as implemented in the study will be discussed in detail in Chapter 6.

2.4.2 The stages of action research

Action research is known for guiding applied research where action is taken as a result of findings, set within a cyclical process of planning, acting, observing and reflecting (Hussey & Hussey, 1997: 64; Weideman, 1998: 28; Page & Meyer, 2000: 20; Habte, 2001: 53-56). The repetition of this process is known as the action research spiral or action research cycle (cf. Davidoff & Van den Berg, 1990: 32; Saunders *et al.*, 2003:95).

Action research, as illustrated in Figure 2.2, starts initially with an idea to change something during the intervention, usually expressed as an objective. Since the stages of action research form the core of the research method, it is necessary to understand what each stage entails. We turn now to the stages of action research as applied to this study.

Stage one: Planning

In the first stage of the cycle, planning, the problem is formulated and an assessment is made about transforming the teaching practice. This step involves fact finding (reconnaissance) and analysis relating to the change, in order to generate plans for the next step of the intervention (cf. Davidoff & Van den Berg, 1990: 33-37; Weideman, 1998: 28; Habte, 2001: 53). Thus, at the planning stage the teacher-researcher devises a general plan of how to reach the objectives set.

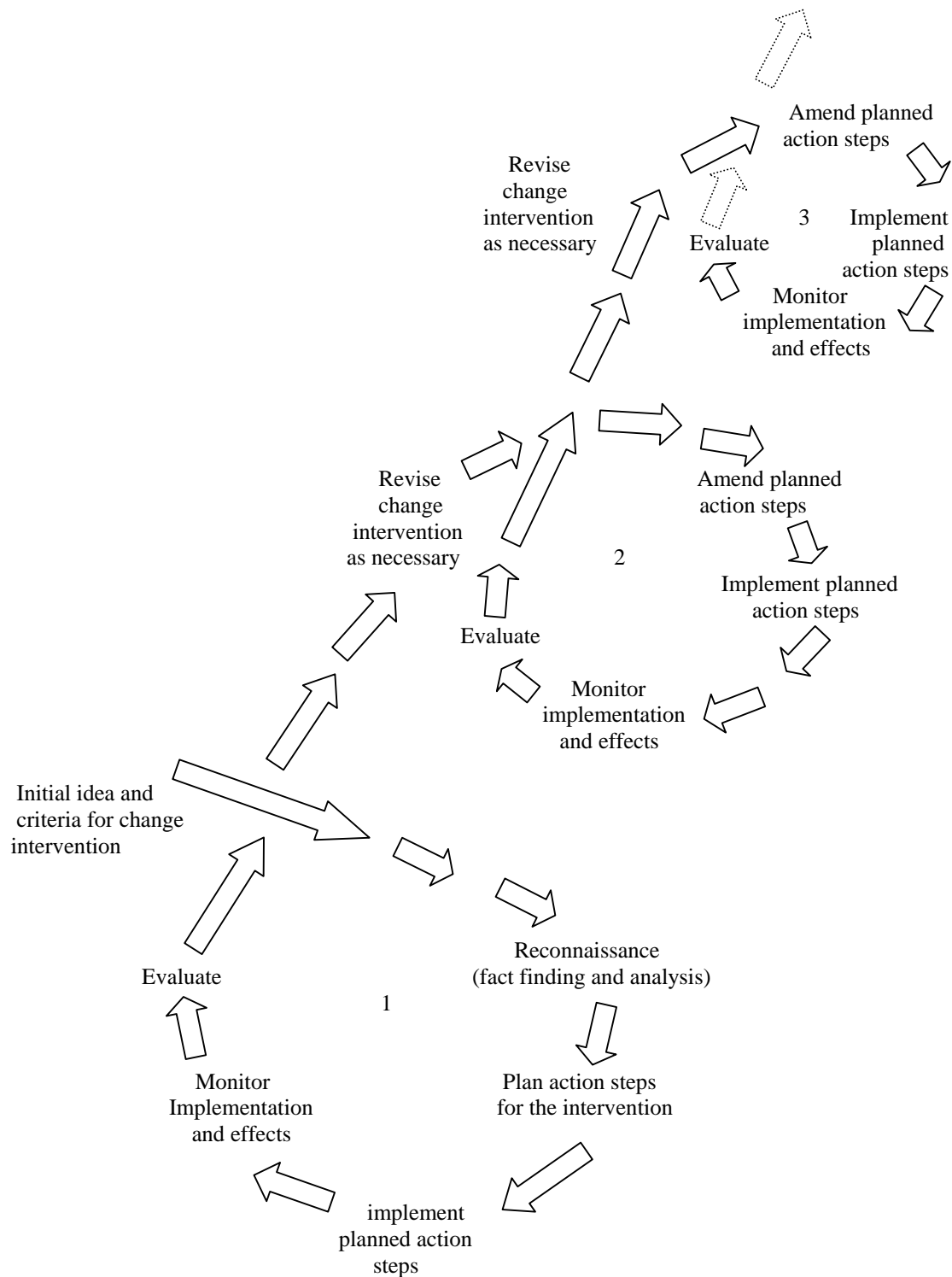


Figure 2.2 The action research spiral (Saunders *et al.*, 2003: 95)

A vital aspect of the planning stage is negotiation (cf. Davidoff & Van den Berg, 1990: 36; Weideman, 1998: 28). The teacher-researcher needs to explain to the concerned parties the envisaged process during the research to gain their understanding and cooperation.

The planning stage also involves assessing physical resources, what materials would be required, and if needed, the production of appropriate materials (cf. Davidoff & Van den Berg, 1990: 36-37; Weideman, 1998: 28). Furthermore, thought should be given to ways of data collection and the resources needed to do so (cf. Davidoff & Van den Berg, 1990: 36-37; Weideman, 1998: 28).

Stage two: Implementation

In the second stage action is taken as the teacher-researcher tries out the ideas relating to the general plan in the class (cf. Davidoff & Van den Berg, 1990: 39; Weideman, 1998: 28). Because of an initial idea or dissatisfaction with one's practice, a teacher-researcher undertakes action research and designs the action required to bring about change. These plans then need to be put into practice and tried out, with careful observation (stage three, below) while implementing them (cf. Davidoff & Van den Berg, 1990: 39; Weideman, 1998: 28; Habte, 2001: 54). These observations of what happens during the class, either by the teacher-researcher, or an outside observer invited to the class, should prove useful for reflection, because the records provide detailed information of the action (Weideman, 1998: 28).

Stage three: Observation

Since a key concept in action research is 'systematic', it is implied that during the third stage the teacher-researcher needs to concentrate on carefully and systematically gathering information about the actions taken (cf. Davidoff & Van den Berg, 1990: 40; Weideman, 1998: 28-29). Thus, during the observation stage the teacher-researcher looks at the action implemented in the classroom, and monitors the effects thereof. The observation stage in the action spiral provides the basis for continuing evaluations, with the aim of assessing the effectiveness or success of the actions (see below, stage four).

Davidoff and Van den Berg (1990: 42-43) emphasise that in the observation stage it is important that the collected data should shed more light on what has occurred in the first two action steps. They also comment that in the action research cycle it is not easy to split the observation and reflection stages, since they are "interwoven" (Davidoff & Van den Berg, 1990: 42). Nonetheless, the teacher-researcher should be

familiar with suitable data collection techniques to ensure the gathering of sufficient and relevant data in order to make meaning of the observations in the reflection stage (cf. Davidoff & Van den Berg, 1990: 42; Habte, 2001: 55). In this study I have used different techniques, which ranged from interviews, informal discussions, questionnaires, diary keeping, to tape and video recordings. The reasons for the use of these techniques in the study are explained in the last section of this chapter.

Stage four: Reflection

At the reflection stage, stage four, all the data gathered are examined, and provide an opportunity for planning the next phase of the action research spiral. The goal of reflection is to adjust the planning and implementation of the next cycle in the process, in order to achieve the desired transformation (Weideman, 1998: 29). During this stage the teacher-researcher critically examines the actions undertaken, evaluating the classroom activity and trying to make sense of what has happened compared to what was planned. Davidoff and Van den Berg (1990: 46) describe the reflection stage as “looking back on your efforts in order to look forward to your future plans”. The subsequent evaluation concludes the first cycle.

Action research as an ongoing process

As indicated in Figure 2.2 and described above, the action research is not completed after one goes through the cycle only once. Rather, it is an ongoing process (Davidoff & Van den Berg, 1990: 46; Saunders *et al.*, 2003: 95). The cycles following the initial one involve revising the change to ensure that the needs (objectives) are met, amending and implementing planned action steps, and observing and once more evaluating the effects of these actions to allow further improvements. Reflecting on the action research spiral as illustrated in Figure 2.2, Carr and Kemmis (1986: 185) point out that in action research a “single loop of planning, acting, observing and reflecting is only the beginning”, and argue that if the process does not continue, it is simply not action research, but rather “arrested action research”. According to Carr and Kemmis (1986: 185), when a researcher identifies the problem based on diagnosis or reflection, makes a plan, takes action, and then makes a final observation to ensure the problem is solved, it is merely problem-solving.

It is in fact the cycle of planning, implementation, observation, and reflection, which “leads to the enlightenment of the teacher-researcher about the specific problem” (Habte, 2001: 48). Another advantage of action research (Habte, 2001: 49) is that it allows the researcher to intervene and introduce changes. This would then enhance the researcher’s understanding of the “issue they investigate under different conditions, and the effects of their intervention”. During the time the intervention took place, action research allowed observation of the effects of the materials implemented, in order to adjust teaching and learning materials to meet objectives 1.4.6, 1.4.7, 1.4.8 and 1.4.9. The very nature of action research requires that one should always refine and amend one’s activities in the classroom. Therefore, reflection on the intervention programme revealed that it would be feasible to improve the designed and developed material. Consequently, Chapter 8 will focus on a redesigned set of materials, and an examination of their appropriateness.

To give a more complete picture of the data collection process in the study, we now turn our attention to each technique employed, explaining the reasons for its use.

2.4.3 Data collection techniques

Regarding data collection, Allwright (1998: 274) notes that collecting the relevant data is the “central methodological question for any research”. In this study qualitative data were collected by means of questionnaires, interviews, informal discussions and the keeping of a diary during the intervention. In addition, the formal planning of the lessons and the materials that were tested constituted primary data. Subsequently, once the qualitative data were collected, a quantitative research approach was used to examine the results obtained, in order to acquire a clearer picture of the effectiveness of the research, and to meet objectives 1.4.1, 1.4.2, 1.4.7, 1.4.8 and 1.4.9. Quantitative analysis techniques were used to examine, evaluate and interpret the learners’ responses in the questionnaires. These included tables, figures and diagrams to allow comparisons, correlations, and frequency of occurrence. Quantitative data were also used for the measurement of the pre-intervention and post-intervention levels of proficiency achieved by the learners as reflected above in section 2.3.1. Chapter 5 will deal with these results more thoroughly.

2.4.3.1 Questionnaires

Since a questionnaire is probably the most widely used information-gathering technique, as well as a structured way to gather information, a questionnaire was compiled to shed more light on the learners' attitude towards Afrikaans, their motivation to learn Afrikaans, and to obtain information on their kind of exposure to the language (Appendix A). At the end of the intervention programme another questionnaire was administered to obtain information about the learners' perception of the effectiveness of the teaching methods, the learning materials used, and to reflect on the intervention itself (Appendix F).

Without entering into a lengthy discussion on the design of questionnaires, it is necessary to consider briefly some of the requirements that have a direct bearing on the questionnaires administered in this study.

It is essential that a questionnaire should be designed and used correctly, in order to provide the required information without 'leading' the respondent. Furthermore, since the language used in a questionnaire is of central importance, and should allow for an "optimum exchange of ideas" (Barker, 1991a: 216), it is necessary to consider the following aspects regarding the questionnaires in the study.

The first questionnaire was in Afrikaans, and entailed short questions and simple phrasing to promote the learners' understanding. Because the first questionnaire was given to the learners during the first intervention lesson, it also offered me an opportunity to assess the learners' proficiency in Afrikaans at first hand. However, the second questionnaire at the end of the intervention was in English, because the information it sought was more comprehensive and complex. Furthermore, a scaling technique was used where the learners had to indicate the statement which most closely approximated their attitude or opinion. Due to the learners' poor functional command of Afrikaans, it would have been very difficult for them to complete a questionnaire that required them to provide a qualitative measure of their experience or attitude.

In the first questionnaire (Appendix A) open-ended questions were used, primarily for the following reasons. Open questionnaires are most appropriate in exploratory research, with the main advantage that they allow a respondent his/her “own frame of reference” (Barker, 1991a: 218). In addition, open questions allow the researcher to assess the respondent’s attitude, what he/she thinks, or feels, and also what he/she ‘knows’ about the subject (Barker, 1991a: 218). Furthermore, the open nature of questions also offers an opportunity to “identify areas of interest not anticipated in advance” (Barker, 1991a: 218). Thus, through the use of open-ended questionnaires, I was able to gain more insight into attitudinal factors in the study. As a result, the analysis of the qualitative data in the study highlighted a number of problem areas, viz. social context and the presence of a high affective filter in learners. These problem areas proved to be of great significance for the implementation of the intervention process. The analysis and interpretation of these collected data will be examined in Chapter 4.

For the purpose of obtaining social context information, as well as personal information from the learners, I decided against the use of a questionnaire per se, and elected to explore an alternative way to obtain the information. The importance and requirements of a curriculum vitae were discussed during the first intervention class, and each learner had to complete his/her own CV with all the relevant information (Appendix G). Since the diagnostic results of the pre-intervention test were not available before the intervention commenced, the completed CVs offered me not only a novel introduction to the intervention, but also a means to obtain the background information needed.

2.4.3.2 Interviews

Since attitudinal factors influencing the learning situation also include the teacher’s attitude towards the learning situation and the learners, informal discussions were held regularly with the teacher responsible for the Afrikaans teaching of the Grade 12 learners to obtain relevant information. Interviews and informal discussions are a source of primary data, are an additional way to obtain information, and are versatile. However, they are ineffective if not recorded properly. Therefore, the discussions, as well as my observations, were recorded in a diary (Appendix D). Informal discussions

were also held with the principal of the school, to find out why Afrikaans is being taught as an additional language, in spite of the fact that it is not spoken on a regular basis in the local community (Chapter 1, section 1.2.1).

According to Cozby (1993: 63), interviews or informal discussions allow the researcher and the respondent to establish a rapport, and, furthermore, the latter may find it interesting to talk to the interviewer. Collecting information through face-to-face contact has the advantage that it provides a fuller response to questions, areas of uncertainty or ambiguity can be clarified, and misinterpretations avoided (Barker, 1991b: 213). Additional information can also be collected when unexpected results are found, or when certain situations occur, or to validate responses obtained by other means, or to probe more deeply into the respondent's original answer (Barker, 1991b: 207).

2.4.3.3 Diary

The keeping of a diary offers the opportunity to recall and reflect on the learning situation. Keeping a diary is valuable, as it contains “accounts of reactions, thoughts, reflections, assumptions, and feelings” (McDonough, 1998a: 95-96), and provides the researcher with valuable information to recall and reflect on events (Wallace, 1991: 63). However, Saunders *et al.* (2003: 228) advise that recording should be done the same day, as a delay may cause some of the valuable data to be forgotten.

A diary was kept during the whole intervention programme, recalling and recording my observations, feelings and assumptions, the learners' actions and reactions, interesting incidents, the learning events, as well as discussions with the principal and the Grade 12 Afrikaans teacher (Appendix D). During the intervention, the diary was used to provide feedback on certain events, record comments by the learners and the teacher, note feelings about useful ways of facilitating learning, perceptions, and reactions to learning materials, as well as about the overall learning environment.

Another concept within action research that needs some consideration is that of ‘reflexivity’ (Webb, 1991: 161). She states that reflexivity refers to the “need for researchers to put themselves on the line in their research reports”. In other words, it

is necessary to include all the relevant data in the research report to allow judgement on the quality of the research and the researcher's interpretation. This implies that a researcher should be honest about how the research was done, admit what problems were encountered, and indicate what changes had to be made, as well as to "write about the process of carrying out the project from their own point of view" (Webb, 1991: 161). Since action research entails the development of research methods, the introduction of changes to the research design, as well as the evaluation of the changes in practice, researchers have a "scientific obligation to tell it like it is", and therefore, the keyword that characterises action research in her view is "openness" (Webb, 1991: 161-162). During the intervention programme I kept a diary because it would give me the opportunity to record my views, experiences and thoughts, not only to help me reflect on events, but also to 'tell it like it is' (Appendix D).

2.4.3.4 Tape- and video recordings

Electronic recall in the form of tape recordings is effective, especially to recall small-group interaction. During the intervention, tape recordings were made on one occasion to capture the learners' communicative activities, which were then transcribed to allow insight into the learners' proficiency in Afrikaans (Chapter 6, section 6.4.7). A transcript as a verbatim account of the interaction during the lesson can be seen as a "very full kind of documented recall" (Wallace, 1991: 63), and offers an opportunity to produce reliable data for analysis.

The advantages of using electronic recall media listed by Saunders *et al.* (2003: 264) are that they:

- provide opportunities to re-listen and review activities;
- allow the use of direct quotes;
- present permanent records for further use.

However, these media are not without limitations (cf. Davidoff & Van den Berg, 1990: 42; Saunders *et al.*, 2003: 264). Apart from the possibility of a technical problem, transcripts derived from an audio or video record of a lesson can be quite difficult, as well as time-consuming to produce. I experienced these problems at first

hand during the recording of the learners' dialogues (Chapter 6, section 6.4.7). The learners' enthusiasm during the recording of their classmates' dialogues generated much more noise than I anticipated, and complicated transcription.

A video recording was made during the singing of Afrikaans songs to capture the learners' participation, as well as to capture and reflect on everything that occurred during the lesson (section 6.4.9). The use of these two media in the learning situation will be discussed in detail in Chapter 6.

The interpretation and analysis of the research will be the focus in Chapter 7. The results obtained by the post-intervention test, as well as the questionnaire administered at the end of the intervention programme (Appendix F), reflect on the intervention programme, and whether the aim of the study was achieved.

In conclusion, if we reflect on the framework of the research process (Figure 2.1) the aim of the study not only gives direction to the initial stage of the research process, but also to the end of the process. Chapter 8 will focus on a redesigned set of materials for teaching in a scarce resource environment. Finally, Chapter 9 will contain conclusions and recommendations resulting from this research.

To summarise, this chapter has focused on how the study was planned and conducted. The framework of the research process was set out, as well as how that guided the research and encapsulated the methods used. Exploratory and action research as research methods were discussed, and explanations were given why these two research methods were found to be appropriate for this study. Different data collection techniques and the reasoning behind the use of each technique were discussed.

In the next chapter, Chapter 3, a literature review of second language teaching studies that are particularly relevant to the problems and issues addressed in this study (cf. above, section 1.4) will be undertaken.