# **Tutorial letter 501/3/2015**

# **RESEARCHING ABET**

# **ABT2618**

# Department of Adult Basic Education and Youth Development

#### IMPORTANT INFORMATION:

This tutorial letter contains important information about your module.

BAR CODE



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### INTRODUCTION TO THE MODULE

#### Welcome

Welcome to this module, Researching ABET, in Adult Basic Education. We hope that you will find this module interesting, helpful and enjoyable.

We are very glad to have you as a student in the ABET Department. We are certain that as a qualified ABET Practitioner you will have a vital contribution to make towards the development of our country.

#### **Purpose**

This module will be useful to people who are interested in gaining introductory knowledge, skills, and applied competence in basic research, its concepts and processes as a preparation for subsequent engagement in a simple research project and the writing of a research report. People credited with this module will have a basic understanding of what is involved in doing some systematic research and will be able to develop a simple research plan.

#### **Module Outcomes**

When you have completed this module you will be able to:

- > Demonstrate an understanding of the functions of research.
- Outline the significance of research in ABET.
- Outline some ways of dealing with research in an organization.
- Describe and discuss typical researching in ABET provision.
- Outline the basic elements of research in ABET organisations.

#### **UNITS**

The printed course material for the Researching ABET is divided into five units. Each unit covers topics related to one of the learning outcomes.

#### What is in each unit?

- (1) Learning outcomes
- (2) Content material
- (3) Activities

#### Learning outcomes

These are specific statements about what you will be able to do when you have worked through the unit and engaged in other course activities related to the unit.

#### Content material

This is the material you will read and think about; other supporting materials, mainly readings, may also be used.

#### **Activities**

Included in the study material are a number of activities. These activities should help you measure your own understanding of the material. The activities will include questions, exercise, self-tests and ideas to think and write about.

#### How much time must I spend on each unit?

How long do I need to study this module and each of these modules? This module is rated at 12 credits. This means that it is assumed that you will spend about 120 hours of study on this module. Usually this means that you must plan to spend time:

- 1) reading the materials
- 2) engaging in activities as you read, and attending tutorials and
- 3) writing assignments, and preparing for and writing the examination.

We recommend that you study for the following number of hours:

- a) reading through this introduction and the five units (40 hours) (about 6 hours per unit)
- b) doing activities and attending tutorials (40 hours)
- c) writing assignments (this include preparation, reading and writing and careful editing) (20 hours)
- d) preparing for and writing the examination (20 hours)

#### SOURCES OF ADDITIONAL INFORMATION

Most of the basic information you need for the **Researching ABET** is either presented in this guide or available in the tutorial letter you received with it.

But what about information you need that is not found in the above? What other information do you need?

#### The internet

Another primary source of information is the internet or World Wide Web. Computer facilities from which you may access this computer-based resource are available at the university.

#### Other students studying this module

Studying on your own can be a lonely task. A rich resource of support, information and experience is your fellow students (whether given informally, by your setting up a study group, or by joining a UNISA tutorial group, or by contributing to myUnisa).

#### Support from the module coordinator

You can make use of the support given by the module coordinator. You are welcome to make appointments to see the coordinator and you can also communicate with him or her by letter, telephone, fax or e-mail (details are given in tutorial letters).

#### ASSIGNMENTS AND ASSESSMENT

#### What is going to be assessed?

The assessment in this module will be based on assignments and examination.

#### **Assignments**

You will be asked to complete assignments during the course. Each written assignment has a due date and must be sent in by that date. The first assignment allows you to gain admission to the examination. The second assignment contributes 10% of your final mark. Completion of the first assignment is a requirement for entry to the final examination. Please note that it if this assignment has not been submitted, you will not be allowed to write the examination.

#### **Examination**

This will be written at one of the recognised UNISA examination centres. The examination will last two hours.

#### Things to remember about assessment

In thinking about assessment, remember that what should be assessed is your demonstration that you have achieved the learning outcomes of this course. To do this you need to demonstrate the following:

- Show that you have knowledge about Researching ABET (which you demonstrate by writing in appropriate ways in assignments and examination answers).
- Show that you have knowledge about the Researching ABET classes and projects (which you demonstrate by writing in appropriate ways in assignments and examination answers)
- Demonstrates that you have the skills to think and plan how you would use your knowledge of such research in practical ways in your education and training activities
- Display attitudes that indicate that the knowledge you have of how adults learn is meaningful to you personally (both as an adult learner and as an educator of adults) and that the way you use your skills will be effective when working with adults (which is displayed in the way you demonstrate your knowledge and skills)

The following are pitfalls that you need to avoid if you wish to demonstrate your achievement of the learning outcomes:

- Writing what you have acquired through rote learning (this means learning words, texts or facts off by heart without really understanding their meaning). You will not do very well in your assignments if you simply rewrite what is contained in the study material.
- Not making use of your own experience. We are very interested in your experiences, ideas, feelings and activities as an adult learner yourself. You will do

well in your assignments if you combine what you have learned from the study material with your own well thought out ideas. You will do well if you can demonstrate that you can use what you have learned in your work and activities.

#### Study expectations

To be truly successful in this module, we will require that you spend a considerable number of study hours reading and writing. The module was written with the assumption that you have a school grade 12 level competence in the language of instruction and in reading and writing skills. It is further assumed that you can learn from predominantly written material and that you can find, analyse and evaluate information relevant to the learning programme. Lastly, it is expected that you will spend time carefully reading and studying the course material and readings provided and that you will do the assignments and prepare for the examinations

# UNIT 1 Basic concepts and understanding of research

#### Learning outcomes

At the end of this unit you will be able to:

- distinguish between research and other (less systematic) forms of developing knowledge.
- discuss how educators do research.
- demonstrate an understanding of the major approaches (paradigms) and styles of research.
- > identify the major research approaches and their influence on the writing of research reports.
- define the principle of falsifiability and some debate around it.

#### INTRODUCTION

Let us start off by recognising that many of you may not have done a course in research. Well, before you shudder in disbelief, it will amaze you to learn that, in fact, in our everyday lives we all constantly do some form of research on a number of issues. For example, let us say that you want to buy a bicycle. You may do research to find out the prices of different kinds of bicycles as well as which kind of bicycle seems best suited to your needs. Research is an organised process where we try to explore some issue (such as the prices of bicycles and the characteristics of different types of bicycle). You probably can think of other examples where you have tried to gather information about something that you needed to understand better.

Another example may be to explore how you as a teacher can encourage your learners to voice their opinions and views. Remember that we mentioned in your course last year (on teaching adult basic education) that one way to *discourage* learners to express opinions is if you as a teacher have strong opinions and you say what you think too

soon. This can mean that learners feel put off from expressing their opinions because they do not want to contradict you. You could therefore do some research into different ways in which you can indicate to learners that their opinions are welcome. You could study the effects of your style of talking on the responses of the different learners in your class. (Not all people respond in the same manner, but you may be able to get some sense of different strategies to use for different learners in order to encourage them to express opinions and participate in the class discussion.)

So in this case the research would be aimed at considering the effects of your own approach to encouraging class participation. You may also want to look at what other researchers have suggested based on their studies (which you may find in books, journals, magazines, etc.) – in order to further explore this issue. In this way you can further build up your understanding, by looking at what others have said and considering whether you think it can be applied to your classroom context.

Remember that when we say have done research and have come to a better understanding, this does not mean that any final answers can be obtained. As the issue is further explored by yourself and others, many new ways of seeing the issue can come up. Research is therefore never-ending, and we can always learn more!

| ACTIVITY |  |  |
|----------|--|--|

Think of any activities in your day-to day life that you feel you need to research. In other words, think of some examples in your everyday life where you might want to gather additional information and hear about different people's experiences and views in order to understand something better. You must also give reasons why you think this topic (that you have chosen to explore) needs to be researched/investigated.

| List the topic to be researched | Reasons |
|---------------------------------|---------|
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#### 1. WHY SHOULD ABET PRACTITIONERS DO RESEARCH?

As an ABET student, you will sometimes get involved in research in the community where you live. Each society or community has its own problems. The problems could be social, economic or political. For example, in South Africa, about 60% of the youth are unemployed. Of this percentage, the majority are Africans (Youth Employment, 12 June 2011).

There are also other problems in the communities like education, health, infrastructure etc. As ABET practitioners, sometimes you will be asked to assist some people from government or NGOs, FBOs, etc. to address the problems. Being involved in activities to improve the lives of others is called community engagement. Examples of relevant research include finding out how many schools girls get pregnant each year, how vulnerable our children are to drug abuse, etc. By knowing more about the area of concern (through doing research) various actors can develop better ways of dealing with it.

Let us consider now that we want to do some research around what is sometimes called the marginalisation of the youth in your community. That is, you want to try to explore to what extent the youth are feeling part of the community/society or "marginal". The research may be aimed at trying to find out, for instance, how youth experience their lives in terms of their extent of:

- hope for their future;
- feeling of conflict with older generations;
- degree of involvement in community organisations and activities;
- awareness of health issues such as HIV and AIDS and the harmful long-terms effects of drug-taking;
- degree of self-worth, etc.

The information gathered around this can become interpreted (made sense of) by the participants in the research and other members of the community, including yourself. On the basis of this, it is possible that ways of creating more involvement for the youth can be developed. For instance, the research may help people to consider programs to re-integrate marginalised youth into the community. Perhaps they can be recruited to help teach literacy and numeracy to adults who have been left behind in their education due to the legacies of apartheid (as indeed some youth have been recruited for the Khari Gude campaign). Or perhaps they can be trained to become community development workers, thus giving them something meaningful to do, so that they can gain more self-respect (as well as respect in the community).

#### ACTIVITY

List different problems in your community, municipality, etc and motivate how research could play a role in solving the problem(s).

| Problem/issue | How research exploring the issue could be helpful |
|---------------|---|
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Below, you will be introduced to the steps that you need to take before you can start doing research. We will discuss how you can go about setting up a research investigation that will assist you in making decisions about certain aspects of your work. We know that as an ABET practitioner, you will not be expected to do large scale research investigations across the country, but rather you will be expected to investigate class or community-based problems or questions that you might have. (The problems/questions are ones that you may have come across when people raise concerns in ABET classes; or ones that arise from your more general involvement in the community.)

#### 2. RESEARCH

Research is variously defined and there is no one definition of it. From an academic point of view, Leedy and Ormrod (2010:2) define research as a systematic process of collecting, analysing, and interpreting information (data) in order to increase our understanding of a phenomenon about which we are interested or concerned. We mentioned above the example of what is called the phenomenon of "youth marginalisation" (which is made up of various aspects). Another example would be the phenomenon of "learners' voicing of their own opinions in the classroom"; or there is the phenomenon of "the vulnerability of children to drug abuse". Research is a *process of going about increasing our understanding of something in a structured, organised manner*. Sometimes we may want to look at how different phenomena are related. For example, we may suggest that youth marginalisation (where youth feel marginalised in various ways) is linked to a tendency towards the use of drugs. Again, we would need to develop a process of research to investigate this

.

Some authors argue that we need to distinguish between "everyday" research and "scientific" research. They suggest that scientific research is more systematic than the way we normally do "research" in ordinary life (when we want to know more about

something). The idea is that scientific research is a more controlled process which looks at information in such a way that it is not just guesswork when we make statements about the topic. We want to be able to support any claims we make on the basis of a systematic collection of evidence, where we can justify why we are making the statements by referring to some evidence.

For instance, say that we just choose to develop a study on some youth whom we know have experienced abuse and violence in their homes. We may want to examine scientifically the claim that such youth are more likely to feel feelings of anger and to become involved in violence themselves. It takes research to look into this matter carefully by, for example, comparing youth who come from violent homes and ones who come from more peaceful homes. We would therefore have to get a sample of a number of youth from each of these types of backgrounds. Depending on the results of the study, we may be able to say with some confidence that from the evidence it appears that the home background has an effect on the way that youth feel and behave. We could say that based on the research and the evidence, there is more probability that youth who come from abusive backgrounds will have this response. So the idea is that systemic research allows us to make statements that we can justify (defend) by referring back to our research.

We could continue the research by trying to explore whether other adults showing care in some form to the youth can make a difference to their responses. Or again we could try to explore whether, say, providing positive role models for youth means that they are more likely to develop on a different path. Programmes of action could be developed around research that we have undertaken; and new ways of seeing the issues of concern and how they can be dealt with can arise. Hence research is an ongoing process which never ends!

What, therefore, do we mean by "scientific research"?

When we consider what exactly "scientific research" is, there is not a simple answer to this. Kerlinger (1986) in de Vos (2010:41) defines scientific research as "systematic, controlled, empirical, and critical investigation of phenomena, guided by theory and hypotheses about presumed relations among such phenomena". What they mean by empirical is that it is based on evidence. What they mean by theory is that we may have a theoretical view such as that "abuse is harmful to people's development". This theory in turn makes us develop a specific hypothesis. A hypothesis is a guess about what we expect to occur when certain conditions are present. So we might expect that if there is abuse in the home to which youth are exposed (a family condition) then we can expect a certain outcome (a certain set of attitudes and behaviors on the part of the youth). In other words, the hypothesis states that there is a relationship between home conditions and responses on the part of the youth such that youth from violent homes are more likely to exhibit their own violence. The idea is then that we can do research to test this hypothesis (by collecting evidence).

Actually, with this definition of research it is stated that when we do research we must try to find evidence that does *not* support the hypothesis. This is seen as a mark of true

scientists, who are *not just looking at the world with the aim to support their initial statements (hypotheses).* The idea is that good scientists will not just try to collect all evidence that supports their views while ignoring other evidence. They must actively *look for evidence that can refute their views.* Only if they cannot find this evidence, then they can say they have some confidence in their statements. This is called the principle of falsifiability to which we will refer later (please also look at the glossary). It is a principle developed by Karl Popper in his book "Conjectures and refutations" (1969). Popper says that our knowledge about the world grows in this way.

But not all scientists agree that this is what is involved in science. Some scientists say that it is possible that *more than one set of statements about the world can be credible* (believable). And there is no way in which we can ever decide that one sets of statements is better than another. Let's take the example of medicine:

The Western approach to medical knowledge is based on attention to cellular biochemistry. It looks at the body as made up of chemical reactions, so that curing diseases is done by injecting specific chemicals as a solution. The Chinese medical approach is based on a theory of energy channels, so that unblocking energy flows that are blocked is the way to develop medical cures. African-styled medicine is based on seeing people as whole beings (including as spiritual beings) so that it is impossible to cure people only through changing physical conditions.

Now these three kinds of scientific approaches to medicine are distinct and they seem to be competing positions. If we accept the Western theoretical position based on biochemical concepts, it is difficult to *also accept* the other positions. So there seem to be here three distinct belief systems with respect to medicine.

And all of them have their share of failures as well as successes when used to cure people. Each one has its own viewpoint and its own explanations for the failures as well as the successes. Thomas Kuhn (whose work we discuss in the next section) says in both natural and social science it is impossible to claim that any one theory is better at looking at the world. Hence we need to be open enough to accept different alternatives. In other words, whether we are trying to find out about natural phenomena (such as in the science of medicine) or social phenomena (such as events and processes in the social world) we may find that there are competing approaches and that none of them can be clearly "disproved" (shown to be false).

#### **ACTIVITY**

Go to the internet and do some searches of definition of research. Or speak to people in your community who say they have done research and ask them what they mean by this. Now write down two or more definitions of research. Lastly indicate some of the debates around what "research" is and whether you think it is good that there is still debate around this.

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#### 3. PARADIGM

#### 3.1 The origin of the concept of paradigm

According to de Vos (2010:39), the use of the word *paradigm* in the sciences has its origin in Thomas Kuhn's *The structure of scientific revolutions* (1970), where he uses this concept to talk about the nature, growth and development of the sciences. Although Kuhn focuses on the natural sciences, he also discusses the social sciences. We saw above that Kuhn says that there can at the same time be different paradigms for viewing the world. These paradigms (or worldviews) form the basis of the assumptions of scientists. For example, Western scientists assume that our bodies are bio-chemical; Chinese medicine assumes that we are made up of energy flows; and African medical science assumes that the physical and spiritual dimensions of our being cannot be separated out. These systems of thought look at the world through these assumptions. Kuhn's (1962, 1970) discussion in *The nature of scientific revolutions* explains the word paradigm as the underlying assumptions and intellectual structure upon which research and development in a field of inquiry is based.

(http://www.personal.psu.edu/wxh139/paradigm.htm accessed on the 10<sup>th</sup> June 2011).

#### 3.2 Assumptions can frame our way of looking

In research, therefore, perhaps we need to bear in mind that when we look at the world we are *already making certain assumptions that influence how we are looking* at whatever we are exploring.

Do you believe that we can be made more aware of our assumptions? If we become more aware of them, do you think that we will be more open to listen to other people who may have other starting assumptions? Do you believe that if we recognise that we are seeing the world through different kinds of "glasses" (lenses), we will be better able to accept that there are alternative ways of seeing the world? Will this help us to become more open to dialogue?

#### 4. THE MAJOR RESEARCH APPROACHES

#### Which research methods should I use?

You will find that you seldom use only one research method when doing research. You will normally use some mixture of what is called qualitative or quantitative research; that is, you will be seeking quantitative information (numbers, statistics) as well as qualitative information (people's opinions, attitudes, reasons for saying or doing something). However, sometimes research is directed more in one than in another direction.

Let us now try to explain what we mean by quantitative and qualitative approaches to research.

#### 4.1 Qualitative and quantitative

**ACTIVITY** 

By quantitative research we mean that we are concentrating on finding out about things that can be expressed in *numbers*. For instance, we can find out how many people are currently unemployed. And we can find out how many of them have some form of education (the amount of education can also be measured). Qualitative research is research where the results are expressed in *words or language* – such as sentences made up by people when we interview them or stories that they tell.

Now in thinking about the mixing of both kinds of data, let's consider research around whether a specific community needs a community hall.

We can try to find out how many people think the community needs a community hall (quantitative), but we usually also want to know *why* they want it by listening to people's own words about this (qualitative). If we want to study why it will be useful to have a community hall, we need to listen in-depth to various people's views on why it will be useful to the community. Some may say it is useful because you can hold ABET classes or run an advice office in it, others may say that you can arrange activities in it for the youth to keep them "out of trouble." We understand more about a situation when we have some access to both quantitative and qualitative information.

| (      |   |
|--------|---|
| Define | the following concepts in your own words: |
| (a)    | Qualitative                               |
|        |   |
|        |   |

| (b) | Quantitative |
|-----|--------------|
|     |              |
|     |              |
|     |              |
|     |              |

#### 5. SOME OF THE METHODS USED IN RESEARCH TO COLLECT DATA

Usually if you do research you should use at least one of the following research methods. The data collection methods that we will touch on here are:

- Interviews
- Questionnaire, and
- Using a mapping exercise.

ABET practitioners usually use these methods to conduct research in the community. But other methods are also available – such as listening to people's stories about their experiences (narrative inquiry), or observing and examining the way in which people talk together about issues in everyday life. Whatever methods you use must help you better understand your research topic.

Let us consider the above methods briefly in turn.

#### 5.1 Interviews

You will have heard of people going for job interviews. This gives the employer a chance to learn something about the interviewee's views and feelings about the questions that the interviewer is asking. It is also a chance for the employer to learn something about the type and quality of knowledge/know-how that the interviewee says they can bring to the workplace. An interview is therefore a way of gaining some understanding of the *person's views* on topics the researcher is interested in and it is also a means of gaining an understanding about *information these people may have and that they are willing to share*.

There are three types of interviews namely: highly structured interviews, semi-structured interviews and unstructured interviews. There are also what are called focus group discussions, which are semi- or un-structured processes of discussion between a number of people, facilitated by a facilitator. We discuss this too as it offers a way of understanding people's "everyday" talking about topics of interest or concern.

#### The highly structured interview

The highly structured interview is an interview where the questions that are asked to the interviewee are all pre-planned in advance. The interviewer just goes through the questions that have been set on what is called an "interview schedule". The interviewer (or a number of interviewees who all will have the same interview schedule) approaches each interviewee and asks them each to answer the questions one by one. It is sometimes considered a good way of making sure that all the participants in a study provide answers to the same questions. Their answers can then be easily compared by seeing how they all responded to the same questions (as long as none of them objects to answering any of the questions, in which case this objection will be recorded).

For instance, say that we want to interview Centre managers of adult learning centres in relation to certain issues. We could choose a number of centres and ask all the managers the following:

Do you think that the ABET programmes in your centre are relevant to ABET learners' needs? Please can you elaborate on this?

Are there any skills which are taught to learners? Please elaborate

How are your learners chosen to take part in different kinds of skills training (if there is such training)?

Can you tell me something about the drop-out rates of learners in the centre?

Can you tell me something about the reasons why you think learners drop out of the centre?

What are the main challenges that you are facing in this centre?

In this way the interviewer can get some idea of the views of various managers on whether and to what extent the needs of learners are being met; on skills that are offered (if any); of drop-out rates and reasons for this from the manager's point of view; and of challenges that they feel they are experiencing as centre managers.

#### Semi-structured interview

In these interview settings, the interviewer has a more flexible "interview guide" that is used to *guide* the interviewer. It is possible that as the interview proceeds, some areas will arise that have not been pre-planned. The semi-structured interview allows more opportunity to both the interviewer and the interviewee to talk about issues that arise during the conversation. For instance, the interview could proceed as follows (as an example):

Interviewer: Do you think that the ABET programmes in your centre are relevant to ABET learners' needs?

Centre manager: We try to do a "needs analysis" of our different learners so that we can make our programmes relevant.

Interviewer: How do you go about the needs analysis?

Centre Manager: We go into the community and we try to find out what different people in the community expect from the adult learning centre. At the same time we try to find out what kinds of skills they say they need.

Interviewer: And then are you able to find teachers who can teach what is required?

Centre Manager: This is difficult, but in some cases we are successful.

Interviewer: What kinds of challenges do you feel that you are facing in the centre?

Centre Manager: One of our challenges is in obtaining trained teachers to teach subjects as well as to teach skills.

Interviewer: Can you tell me something about the drop-out rates of learners in the centre and why you think people are dropping out?

As we can see, in this (made-up) interview, the interviewer has an idea of what should be covered, but also can follow the direction set by the interviewee. So when the interviewee mentions doing a needs analysis, the interviewee carries the conversation further in this direction. In other words, the conversation flows according to what is said by both the interviewer and interviewee. But the interviewer still has a guide to help direct the conversation.

#### Unstructured interview

In the case of unstructured interviewing, the researcher has a more "natural" conversation with the respondent and allows the conversation to flow in the same way as in everyday conversations, excepting that the interviewer tries to keep the conversation focused around certain areas that the researcher requires certain information on. Here is an example:

Interviewer: Do you think that the ABET programmes in your centre are relevant to ABET learners' needs?

Centre manager: Many of our learners would like to obtain a more skills-based training.

Interviewer: How do you think you can go about offering this?

Centre Manager: We do not have a lot of resources to attract people who can teach people skills – but sometimes we are able to find people in the community who become volunteers and we can pay them a small sum for their teaching.

Interviewer: Can you give me an example?

Centre Manager: An example would be the teaching of sewing skills or the teaching of gardening skills.

Interviewer: What kinds of challenges do you feel that you are facing in the centre?

Centre Manager: One of our challenges is in offering relevant subjects and skills to learners. We also need to get teachers who can teach them small business enterprise skills.

Interviewer: Do you think that if they know more about setting up small enterprises they will be able to set up some business?

Centre Manager: Yes, especially informal businesses in the informal sector. And those that are already in some business can improve upon this.

Interviewer: Can you tell me something about the drop-out rates of learners in the centre and why you think people are dropping out?

In this (made-up) interview the conversation is more natural and is focused also on what the interviewee brings up. So it is controlled more by the interviewee than by the interviewer. This means that the interviewee is able more freely to express what is of concern to him or her. This allows us to gain some understanding about what is of interest to the interviewee and what they regard as important to focus on. So it gives us a "window" into this. But some issues that the interviewer wants to talk about are also discussed.

#### Focus Group discussion

Sometimes we can set up what are called focus group discussions with a number of people (usually between six and ten people). A facilitator can then facilitate the discussion around a topic of interest. For instance, we may want to call together a group of centre managers from different areas (say, both rural and urban ones) to talk about the challenges they are facing and even perhaps to share ideas on how to deal with these challenges. We may also want to invite some teachers and some learners too to join the discussion. In this way various points of view can be discussed in a focused conversation around ways of running adult learning centres to try to serve learners' needs. Focus groups are a good way of creating a forum for discussion between various people. And from a research perspective they offer us a fairly quick insight into areas of concern to people; what constraints or blockages they are experiencing when dealing with problems; and what possible solutions they can think of in a collective context.

#### 5.2 Questionnaires

We are sure that at some stage you have been asked to fill in a questionnaire – or a form asking you to answer a set of questions that are of interest to some organisation. For instance, if you go to a bank to open an account, the bank will ask you to fill in a form about your age, your occupation, your income, why you wish to open an account with them, etc. There will be response categories that allow you to tick the appropriate response (that applies to you). There may also be some space for you to write some comments in your own words (such as your reasons for wanting the account). When the form gives you available choices to tick, these are called *closed-ended questions*. When

the form allows you to write some things in your own words, these are called *open-ended questions*.

When doing research into some topic, you too may want to create a questionnaire that you will ask a variety of people to fill in. The advantage of a questionnaire is that they are relatively easy to fill in and they can be distributed to a large number of people to fill in without too much effort on the part of the researcher. (Next year you will learn more about how to select what is called a "representative" sample of people who "represent" the larger population that you are interested in studying, so that important information and views are not left out.)

When you are creating your questionnaire, remember that you will want to pilot (test) it first with a few people to see how they are making sense of the questions you are asking. For example, if you have a question such as: "Do you have access to water to tend to a garden"?, people may not know what you mean by "access"? They may also not know what you mean by "tending" a garden.

So it is important to take a few people similar to the ones whom you will eventually be asking to fill in the questionnaire and test out the meaning with these people. Then you can change the questions where people were finding them unclear. Even if you do a lot of testing, there is no guarantee that after you have altered your questions, people will understand them in the way you mean them. But at least there is more of a chance that they will be answering the questions as you are hoping they will understand them.

When constructing a questionnaire it is also normally a good idea to include some openended questions, such as asking people to offer reasons for why they have answered in a certain way. So, for instance, you may ask a closed-ended question to teachers: "To what extent do you feel you are serving learners' needs?" (You can give some choices to tick, such as "to a large extent, to some extent, very little, not at all".) Then you may ask them to give reasons for the answer that they have ticked. (This is called an openended format because it allows an opening for people to express their answers in their own words.)

#### 5.3 Mapping (participatory mapping)

Mapping is another method that has been tried out within some communities in order to allow a range of issues to be explored in a community, with the participation of members (see

http://www.participatorytraining.co.uk/How%20to%20do%20participatory%20mapping.pdf). This is done by bringing together members of the community and asking them to collectively participate in drawing a map of important places. For example, the map could feature the roads, the open areas, the sacred areas, places where informal economic activities are taking place, places where teaching of classes to adults takes place, places which are fertile for growing crops, places where a sports ground could be established, places where a community hall could be established, etc. What should go into the map is a matter that is decided by the participants.

The researcher/facilitator (who has initiated the map drawing process) can advise participants that they can specify what are "good things" on the map that they are drawing and what are seen as "bad things" (areas where "bad" activities are taking place, such as dangerous areas to be avoided); and the participants can also specify what needs to be changed by marking this in some way. Some ways of colouring in the different spaces can be provided by the researcher so that the map becomes more readable. Post-it notes in different colours that can be attached to the map may also be helpful, with ideas that participants have of activities that are taking place or should take place. (If some of the people in the community are not literate then others can do the writing. The researcher can also offer to help with the writing.)

It is even possible to draw the map on the sand in the ground, where people can walk around the map and place extra features on it.

The researcher's task in the mapping exercise is to

- listen to what people are saying about the building up of the map
- probe their statements to get more detail
- encourage different people to participate
- expect the unexpected and enable this to emerge.

Remember that it is a participatory method. This means that neither the researcher nor any of the participants should dominate the exercise (see again http://www.participatorytraining.co.uk/How%20to%20do%20participatory%20mapping.p df).

The organisation called mapping for human rights

http://www.mappingforrights.org/participatory\_mapping) defines the principles of the exercise as follows:

community-based mapping is a general term used to define a set of approaches and techniques that combines the tools of modern cartography [map making] with participatory methods to represent the spatial knowledge of local communities. It is based on the premise that local inhabitants possess expert knowledge of their local environments which can be expressed in a geographical framework.

The purpose is to enable people in the community together to build up a representation of the area in which they live and what they regard as important and in this way develop a basis for planning different activities.

#### **ACTIVITY**

#### Developing a Questionnaire

Make up a number of questions for a questionnaire that you think will help you to gain some information about how teachers in adult learning centres are handling the assessment of learner portfolios. Remember to ask questions about how many they have to deal with each year, at what times of the year they have to deal with them, how

| difficult or easy it is for them to assess them, what kind of feedback they offer to learners, etc. Remember to also include a few open-ended questions that allow the respondents to answer in their own words.  |
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|   |
| Conducting Interviews   |
| Set up interviews with 5 people around a topic that you want to explore by asking them if they are willing to take part – and then conduct the interviews with these people. Decide whether you want to use a structured, semi-structured or unstructured interviewing approach. Ask the people to explain to you in five minutes (at the end) how they experienced the interview process. Also record below some of your thoughts about how you experienced the process and what you learned about doing interviewing. |
|   |
| Mapping exercise  |
| Ask some members of your community to participate in building up a map of the area, locating places that they consider important in the present and in the future Ask members whether by drawing the map together they have learned from one another. State also what you yourself have learned by doing this exercise with the community members.  |
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#### 6. COMBINING BOOK RESEARCH WITH OTHER FORMS/TYPES OF RESEARCH

Sometimes we can get the information we need by consulting books or documents, other times we need to develop new information for ourselves. For example, we can find out from the government's census report (available in libraries) how many people in the community fall into various age groups. We can call this the age profile of the community. But our knowledge of the community is limited because we do not know

much about the people in the community besides their ages; in particular we do not know what they think about their community or things that affect it. If, for example, we want to find out what young people expect from the new government regarding their needs, we need to go into the community, speak to young people and ask them relevant questions. We start with the information from the census and then add to it the new understanding we get from our research in the community.

So you should think of the most appropriate combination of methods for your research exploration (including processes for collecting your own data and also book research).

#### 7. FALSIFIABILITY

As we mentioned earlier, falsifiability is a term developed by Popper. He explained it as the ability of a theory to make predictions about what is expected to occur if the theory is true, and also its ability to *state what kinds of evidence can be taken as disproving* the theory. So for instance, say that we predict that adults in the class are not likely to express their views if the teacher is doing all the talking. We can say that we predict that there is a link between the *amount of talking of the teachers* and the *amount of talking of the learners* – with us expecting *less talking by learners in classes where teachers do a large amount of talking.* Now that we have this hypothesis, we can go out and test it by observing a number of classes. Let us say that we observe that in the classes where teachers did a lot of talking, the learners also were often adding into the conversation and even interrupting the teachers to get their views across. This would imply that we would need to *reject or falsify our initial hypothesis*.

According to Popper good scientists are prepared to reject their hypotheses if the evidence suggests that it is false when we go out to test it. In other words, this ability to be tested, and the *potential* for the theory to be invalided by observations/evidence, is the essence of falsifiability (http://rationalwiki.org/wiki/Falsifiability).

But as we have seen not all scientists accept this idea of Popper. They say that it is never a simple decision to "reject" a hypothesis – because we may be able to find an explanation for why the events turned out as they did, even if we could not predict this. For instance, maybe the learners in some classes believed the teachers were doing a lot of talking because the teachers were feeling were nervous; so the learners decided to help her or him out by adding to the talking! So maybe this explains why when teachers did a lot of talking, the learners did as much talking! So we can perhaps offer new angles on the amount of talking done by both teachers and learners in different contexts. This might make us more sensitive to different cultural contexts and different ways in which people can react – that is not always predictable.

In any case, the decision as to whether to reject a statement that we ourselves or someone else has made about predicted outcomes (if the predicted outcomes do not occur), is not as easy as Popper assumes it to be. We may be able to "rescue" the theory by introducing new ways of seeing the outcomes that do occur. (Incidentally, Popper got into a debate with Marx around this principle because he argued that Marx's predicted workers' revolution did not occur. Therefore according to Popper the Marxist theory was false. He stated that the problem with Marxism is that whatever occurs, Marxists can find an explanation for what has occurred and they therefore hang onto

their theory. But Marxists do not agree with Popper that they are therefore being "unscientific".)

| ACTIVITY  |
|---|
| Go to the internet and search the principle of falsifiability. Now write down in your own words what you think it means for the practice of research. Also consider if you agree with this principle as the prime principle guiding research.   |
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|   |
| 8. SUMMARY  |
| Research in ABET is a not an event, it is the process. As ABET students, we will sometimes do, or become involved with, research in the community in which we live. Each society or community has its own problems. The communities may have deep structural problems. The problems range from social, economic and political problems etc. |
| Make notes on the following concepts:   |
| Research  |
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| ABET  |
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| Paradigm          |      |      |
|-------------------|------|------|
|                   |      |      |
|                   | <br> | <br> |
|                   |      |      |
| Research approach |      |      |
|                   | <br> | <br> |
|                   |      |      |
|                   |      |      |
| Qualitative       |      |      |
|                   | <br> | <br> |
|                   | <br> | <br> |
|                   | <br> | <br> |
|                   |      |      |
| Quantitative      |      |      |
|                   | <br> | <br> |
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|                   | <br> | <br> |
|                   |      |      |
| Interview         |      |      |
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|                   | <br> | <br> |
|                   |      |      |
| Questionnaire     |      |      |
|                   | <br> | <br> |
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| Mapping       |  |
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| alsifiability |  |
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We hope by now that we have created a good starting point to indicate to you what research involves. The following units will continue to discuss what is meant by carrying out research.

# UNIT 2 How to design a typical research process

#### **Learning outcomes**

At the end of this unit you will be able to:

- > Identify and explain the purpose of case studies and generate a sample of a case study.
- Identify certain steps to be undertaken in carrying out research as a process.
- > Include all elements of research when compiling research reports and case studies.

#### INTRODUCTION

In the previous unit, you were introduced to some of the most common methods of research that people who work in the ABET field are likely to use. In this unit, we will focus on what you will need to do to plan for a research project.

To start with, you must have tried to find out which television or radio brand offered the best value for money, or which adult education centre offered what kinds of training. You also probably have had an interest in exploring the quality of the training. Or, you may have done some research to find out which universities offer ABET diploma

courses and what courses you have to do for the ABET diploma course in each institution.

When you try to answer questions like these you are actually doing research in the hope of finding answers to particular questions or of solving a particular problem that you might have. However, when you do research like gathering information on radio brands or on the subjects you will need to study at university, you do not follow a very rigorously or strictly organised or structured approach. The research you do is a little haphazard and does not really follow the structure that we use for academic or social research.

So, in this unit, we will be looking at how you go about planning to do research as a process.

#### 1. RESEARCH AS A PROCESS

The following steps are important in doing research. We do research because there are problems in the community or society where we live. You might have noticed from the previous unit why as an ABET practitioner we should do research.

#### 1.1 Define the problem/question you want to examine

Select a topic for research. Let's say that our topic is related to the question of how adult educators can develop a learning climate where learners show respect for the opinions of others while also allowing opinions to be questioned. The problem here may be that you have noticed that sometimes when people want to *show respect* for others' views, they are *afraid to question* these views (or offer alternatives) because they are worried about how the other person may feel when they do this. If this occurs in the classroom, then people may not learn from each other's different experiences and perspectives.

A research problem is therefore seen as arising when we believe that some (more) inquiry is needed to cast light on an issue that needs attention (that we believe has not been adequately explored). As we will see below, we must also take a look in the literature to check that the research has not been done before – so that we avoid what Onwuegbuzie, Leech and Collins call "unintentional and unnecessary replication" (2012: 1). That is, we must not just do again what other researchers have already done.

#### 1.2 Read about the problem

Familiarise yourself with what other researchers have said about the topic. For this you will need to do what is called a literature search, where you will search in the literature for the kinds of things that other researchers have said about teacher practices for providing support for learners while also allowing for challenging of views in a respectful atmosphere. So you will read about how researchers have tried to study the skills needed by educators (especially adult educators) to create a climate of respect, while developing an enabling atmosphere where people can hear and engage with different opinions. Now you may have noticed that even with all this literature, there is not

enough said about being sensitive to the feelings of learners when questioning their opinions. So you may decide that you want to concentrate on this aspect in your own research.

#### 1.3 State your research question

What is it that your research will be exploring? Perhaps the question will be: "What skills are needed by adult educators to develop a learning climate where people feel safe to question others' views, while not hurting their feelings?" ((Note when we talk of the research question that you are exploring, we do not mean the questions that you will be asking respondents and participants as part of the research process; this is something that is discussed when you talk about your methods that you will be using.)

#### 1.4 Work out a research plan

Choose the research methods that you will use.

You may want to design a set of questions in, say a semi-structured interview, asking past learners (from different adult learning centres) what kinds of teachers that they have had in the past who have managed to create a learning atmosphere where people feel comfortable in engaging each other's' views. You may ask them to reflect on the qualities that such teachers had and the techniques that they seemed to be employing. You may also ask them to indicate qualities that hindered this from happening such that learners became hurt by what others said about their views. This would help you to work out the approaches that must not be used if one wants to develop an atmosphere of respectful and caring learning. You may be able to create a semi-structured guide which focuses on these kinds of questions. (You may decide that on the spot when interviewing interviewees it is possible that the interviews could become more unstructured if some past learners begin to say things that you want to follow up, because you think it offers new angles that you had not thought of.)

You may want in addition to observe a number of adult education classes where you give attention to whether it seems that people in the class are able to put forward new opinions without making people feel "inferior" for having stated some other view.

You can observe how the teachers deal with situations where s/he can see that people's feelings are becoming hurt. Then you may want to ask the different teachers afterwards how they recognised that they needed to act in the way that they did. From this you could also build up your understanding of the different ways in which teachers can manage the classroom so that learning takes place without learners feeling "crushed".

In any case, you will have to think carefully about a strategy (that may contain more than one method) for researching the issue.

#### 1.5 Carry out the research

The next step is to actually go out and collect the data and record the information.

#### 1.6 Interpret your findings

This involves trying to work out what the data might mean, as related to your research question. You will have a lot of data that you have to consider in terms of how it helps to answer the question of whether we can locate some skills that teachers can use that have the effect of creating a learning as well as caring climate.

#### 1.7 Report or act on information

Write on your findings and give readers an indication of how you are coming to any of the "conclusions" that you are coming to. Make sure also in the report to explain to the readers how you have gone about the research.

You will need to specify in the report what kinds of questions you asked during the interviews and how you are now comparing the different participants' responses. You will also need to specify how you conducted your observations in the different classrooms and what you were on the lookout for. And you will need to specify how you conducted your interviews with teachers after this and how you are now comparing their different responses. It is also good practice if possible to show your interpretations to various participants (especially if they have expressed interest in this). They may disagree with some parts of your interpretation and this may lead you to change/strengthen it. Even if you do not agree with what they have said in relation to your draft report, you can state this in the report and allow readers to see where you are differing. This helps readers to see that there are still further questions that can be followed up in further research.

Meanwhile, it is possible that some of the participants who read the report will learn something from it (for example, about other teachers' practices and about how learners express their understanding of good teachers). It is also possible that you can spread your report to various other people whom you think may be interested. You can also offer to run workshops around the results

You could offer to hold some community meetings where you discuss the results and still further encourage debate about the meaning of the results. (This is a practice suggested by Acquah in his article called *Community involvement in social research in Botswana*, 2007. This is further developed by Romm, 2010, in her discussion of accountability to the community.)

## **ACTIVITY**

Look at the steps in the research process and think about a research problem that you would like to explore. Imagine that you now want to proceed with the research. What exactly does each stage of the research process deal with? Try to fill in the blocks below in terms of your imagined research.

| Defining the problem    |
|-------------------------|
|                         |
|                         |
|                         |
| Read about the problem  |
|                         |
|                         |
| Research question       |
|                         |
|                         |
|                         |
| Research plan           |
|                         |
|                         |
|                         |
| Carry out research      |
|                         |
|                         |
|                         |
| Interpret your findings |
|                         |
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|                         |
|                         |
| Report                  |
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#### 2. CASE STUDY

In this section we are going outline what is called the *case study approach*. The case study approach is not a method as such, but a research strategy where the researcher aims to study one case in depth (Burton and Bartlett 2009:63). Various methods can be used when studying a case – such as questionnaires that can be handed to some of the participants in an organisation (or some other unit of study), or interviews that can be held with participants, or observations of meetings, or looking at important documents (such as minutes of meetings), etc. The aim is to build up in-depth knowledge of the various processes and dynamics of interaction of people in the case under investigation.

Each case is unique, which is what makes them so interesting. Flyvbjerg indicates that cases generate context-dependent insights into social dynamics occurring in particular contexts (2006: 222). However, it is suggested by many professionals that it is possible for professional researchers as well as others to draw upon the knowledge of previous similar cases that has been developed via case study research. By looking at some similarities with other cases, we can understand better the case currently being examined. Also, in the write up of the report, we can show why we believe that the case study offers some insights that can be applied in other situations too.

There are many examples of where case studies have been used in education research to illustrate what Flyvbjerg (2006) calls exemplars of "what is possible". That is, they express dynamics about what types of human relationships are possible, even if they are not widely spread. So, taking our previous example, we can find out about cases where teachers have managed to create a caring and sharing dynamic and we can learn something about this, and see if we can apply it to other contexts too.

Education professionals can draw upon their own experience and documented accounts of previous cases to help them analyse, explain and, suggest action. For instance, they can document *constructive ways of developing relationships between teachers* in the learning centre (where teachers together discuss their teaching practices), and they can document *teachers' ways of building up relationships with learners*, etc. Their own findings and suggestions can in turn be added to a growing body of case history – that is cases of what has historically been tried and how it has been experienced by different actors.

Let us now consider a case relating to a housing project. This offers an illustration of the outcome of adopting a non-participatory approach: on the basis of this case, the research calls for more participatory approaches to be adopted.

#### 2.1 Case study about a housing project

#### I don't want a new house

Company X was given the task by government to develop 2233 housing units (each 28m2 (square meter) in the Mhingaville area. Eleven months later, the houses were completed. But, one year after their completion and some R37-million later, fewer than 740 of the 2233 houses are occupied. Why? A research process was set up to try to

answer this question. (This is a case study from a research report of T Lamont and published in the journal: *Housing in Southern Africa*, February 1999)

The research was set up to investigate why people had chosen not to occupy the new houses that had been built. As part of the research, the researchers also sought information about how the housing project had been planned. They investigated whether the potential beneficiaries of it (those who were meant to benefit from it) had been consulted. They interviewed various people who had been involved in the planning of the project, they looked at the planning documents, they interviewed people in the community who had chosen not to move, they looked at their existing housing arrangements and asked the occupants about this, etc. Their conclusions were as follows:

Although the planners consulted officials at various levels, they did not really consult the community – more especially, they failed to consult the women in the community to find out whether the new houses were actually needed. Had they consulted the community, there would have been a two-way form of education.

The planners would have found out that that people in the village were living in well-constructed and very suitable homesteads made up of 4-5 rondavels. They were not living in shacks. The new houses might have been a great improvement for them as far as the planners were concerned. But the traditional houses they were living in were very functional and *they did not see the benefit of changing*. By clustering 4-5 rondavels together, they in fact had 4-5 roomed "house", each room was separated off for a different function and for extra privacy.

The planners assumed that what they considered to be "better" houses would be seen in the same way by the members of the community. They did not try to check out their assumptions with the potential beneficiaries. Their "top down" planning was thus a failure.

This case offers a story from which we can draw lessons about what is likely to occur if top-down planning is done. It is likely that planners will *miss important information* that they could have obtained from participants if they had tried. By understanding this case, we get an indication of why consultation is needed. So the research about the case and "what went wrong" offers ideas for future planning.

*Note*: the case study approach requires that researchers spend time getting detailed information about the case. This is not a short-term process of research. So researcher/investigators need to be willing to spend time to go into depth into either "what seems to have has gone right" in terms of the development of human relationships or "what seems to have gone wrong". It is only through studying a case in detail that we can draw lessons from it.

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| Think about a case study of which you are aware – either one that you think offers an example of how positive relations can be set up or one showing the effects of failed relationships. |
|---|
|   |
| Do you think that details of the case as offered by people investigating it (including perhaps yourself) helps us to draw lessons from it?  |
| Give reasons for your answer  |
| Give some advantages of case study approach to doing research   |
| Do you think there are any the disadvantages of the approach?   |
|   |

The following unit is going to look at what is involved in an evaluation of a project and also how to construct a report on research using a simple checklist.

# UNIT 3 Analysing a research report using a simple checklist

#### Learning outcomes

At the end of this unit you will be able to:

- > Use an approved checklist to analyse the design of a research process.
- > Consider what should be contained in a research report (or journal article).

# 1. A SIMPLE CHECKLIST TO CHECK THE RESEARCH PROCESS AND THE CONTENTS OF A RESEARCH REPORT

For this unit we are going to start off with offering an example of research that is aimed at evaluating a project. (In the last unit we discussed a case of evaluating the results of a housing project, but we did not indicate how the report was constructed because this was not our focus there.) We are now going to use another example of an evaluation to illustrate how you can report on research to an audience. This can also be used by you to consider if someone else's report is well constructed. We give an indication of how you can use a checklist for these purposes.

Below is our example of a research project evaluation.

Let us consider that as an ABET practitioner you may:

- Want to evaluate the "Extended Public Works Programme" as applied to your community, OR
- Be working in a project and want to re-evaluate the project's work is it still meeting community needs, is it fulfilling its objectives? OR
- Be required by a funder to evaluate a project so that the funder can see how its money was spent.

Firstly, a research design has to be made that is aimed at doing an evaluation. Miller and Campbell, (2006:297) indicate that programme evaluation involves a type of investigation that looks at the way in which the *programme is operating* and/or *outcomes of a programme*. The outcomes are compared to a set of goals that have been set out for the programme to meet. So, for instance, in a Public Works programme of building roads, the desired goals may be to:

- create employment
- · give people skills
- increase people's self-confidence
- get a road built

To design the evaluation we need to consider how we will investigate the way in which the programme is operating and/or the outcome of the programme. For instance, again taking the Public Works programme, we will need to explore, say:

- what mechanisms are being used to publicise that the programme is in place (and are there perhaps alternative mechanisms that different people may suggest for future publicising)?
- how are volunteers being recruited (and again, are there perhaps different processes that can be suggested)?
- whether there is a fair way of recruiting participants (in the eyes of stakeholders) and how might this be improved?
- what are the processes in place for paying the participants (and is there perhaps a more efficient method of payment in the light of problems that people may be experiencing)?
- what processes are in place for checking that the road is being well built, etc.

An assessment of the outcomes would be aimed at trying to find out, for instance:

- how many people have become employed via the programme;
- what the participants' age groups are;
- to what extent people are learning skills that they can also use in other workplaces (or in their own enterprises that they may set up);
- to what extent participants are feeling that their confidence is boosted through their participation;
- to what extent do the participants feel that the quality of their lives have changed?;
- What is the quality of the road built? (For this question some experts will need to be consulted!)

The researchers will need to consider a range of methods will be used to help answer the above questions. And after the research has been done, they will write a report so that this can be used by the organisation (in this case the government) to make improvements if necessary.

Now let us see how you can use a checklist to check how the research was conducted and whether the report is well constructed. (In the discussion below we write as if it is you who are conducting the research, but you can also use this checklist to look at other people's reports.) The report should contain:

- A description of the community/company/organisation, etc. that the report is about.
- A clear statement of the topic investigated and the reasons for doing the investigation.
- A discussion of the research process followed, including:
  - o the steps you followed in doing the research
  - o the methods you used
  - o some reasons for doing it that way and using those methods
  - some problems you encountered during the research process and how you solved them. (For instance, if some officials did not want to speak to you, how did you locate others who would? If people did not want to release certain information, how did you get around this? Etc.)

- The information you found.
- What you will do with your findings.
- The value of the information you found, for example, how it can be used to the benefit
  of the community.
- Some ideas about things that need more research.

You must include as part of the report the research processes that you used to collect the information and how you analysed the information received. So you will include the questionnaire that you may have used, statistics that arose from the analysis, how many people you interviewed, their gender, ages and status, etc., and the kinds of questions that you asked them, as well as the kinds of responses that came out during the interviews. Your analysis of the data and your interpretation of their meaning, as well as your suggested recommendations for future action (that you want to suggest), should also be included. The recommendations can be some proposed additional research and/or recommendations for action that you believe (on the basis of the research) will be helpful to benefit the community/society.

#### 2. SIMPLE CHECKLIST GUIDELINES

The following are some general guidelines on how to go about writing a research report. The guidelines show the minimum information you can include in your report. You can, of course, include more. But below we present a basic format for research reports that are written to show clearly and in a structured way:

- What you did (including whom you spoke to or interviewed and why)
- · Where you did it
- When you did it
- Why you did it
- What you found
- What you concluded
- To what use the information can be put
- What you will do with the new information and understanding

The guidelines do not have to be followed in the form or the order that they are written above. You can change them in any way that you think is appropriate. But you must take in to account is that the report should be logical so that readers can understand the purpose of the research as well as the processes of the research, and how the results that you are reporting (and your recommendations) have come out of the research processes. So there should be clarity in terms or the points mentioned above.

#### **ACTIVITY**

Take any research report (from a report that you have access to or from a journal article or magazine). Use this checklist above to see if the author (or authors) has:

- clarified the research problem/issue to be investigated;
- indicated the research question that is being explored;

- justified the research methods used (and how they are appropriate for looking at the issues);
- explained the details of how they have used qualitative and/or qualitative research methods;
- described any problems they encountered during the research process, as well as say how they tried to solve them;
- reported any ethical considerations;
- explained how they tried to make sure that their own perspectives did not dominate the views of others (and that they were open to listen to people);
- analysed and offered their interpretation of the data;
- offered some suitable recommendations that seem to spring from the research.

# UNIT 4 Planning a simple research study project

#### **Learning outcomes**

#### At the end of this unit you will be able to:

Plan a simple piece of research using an approved research proposal template.

#### INTRODUCTION

It is important to choose a topic carefully before you start. It should be something you know about or are interested in, so that any thoughts or opinions you already have about it can guide your investigation.

Although the research study may be presented in a number of different ways, you need to make sure that critical aspects of the research are included in any research proposal.

#### 1. WHAT TO INCLUDE IN THE RESEARCH PROPOSAL

The following gives an outline of what must be included in the content of the proposal:

a) Rationale and overview (in relation to a title that you present on the front cover of the proposal)

You should start off with a description of the background to the problem, namely, the context of the problem and why you think it is important to do the investigation. For instance, considering our example in Unit 2, you may feel that there is a problem in relation to better understanding the skills needed by adult educators for creating a learning as well as caring climate in adult learning contexts. You will then explain the title of your project as related to this problem. (In Unit 2 we suggested that a proposed title may be: "What skills are needed by adult educators to develop a learning climate where people feel safe to question others' views, while not hurting their feelings?".)

Having explained the background to the problem, you will need to offer:

- A clear statement of the research problem and how it can be converted into a research question that you will be trying to explore. Here you will need to explain what the overall question is that you will be looking at – such as the way teachers manage (or not) to create such climates.
- The aims of the research. Here you will state that you are aiming to explore further the approaches of teachers and how these are experienced by learners in specific contexts.
- Definitions of importance concepts, for example, those in the title. The concept of "adult educators' skills" may be one that you need to clarify, or the concept of "learning climate", or the concept of "hurt feelings", or the concept of "questioning of views", etc.
- A brief overview of what the rest of the project entails including the research methods to be used to address the research question.

## b) Literature review

The literature review could be books, papers read at conferences, seminars, workshops, journal articles etc. The researcher could also give the most relevant and recent literature on the research problem. You should also show where there are gaps in the literature that your research will be aiming to fill. We saw in Unit 2 that you may identify a gap in the literature regarding adult learners' feelings when others seem to be questioning or doubting their opinions. You can indicate why you think that this issue needs further investigation in relation to the skills of adult educators in handling such feelings.

#### c) Research design

In setting out your proposed research design, you need to:

- Explain and justify details about the research methods that will be used for example, quantitative and/or qualitative processes to be used; that is, questionnaires, interviews, etc.
- Describe how you will select your sample of people who would be respondents/participants in the research. (We offer more detail on this in next year's course.)
- Point to some ethical considerations that may arise for you during the research process. (We offer more detail on this in the following unit.)
- Clarify the manner in which you propose to deal with the data that you will gather that is, how you will analyse the data.

# d) Strengths as well as limitations of the study

You must show that you recognise that the study has certain strengths as well as limitations. This means that you need to:

- Specify what you will be and will not be trying to explore.
- Highlight the scope of the study project.
- Indicate why you think the research project will make an original contribution to the field of ABET by exploring issues that have not been explored (in such depth) before.

## e) References

Remember that at the end of your proposal you will need to offer a reference list. This consists of a list of all the books, articles and other sources that you have actually cited in your proposal.

#### 2. SUMMARY OF THE RESEARCH PROPOSAL

Below is a format of a typical research proposal in summary form:

- Your personal particulars
- The proposed research title
- Stating of the problem you wish to research
- Formulation of the research question
- Literature review
- The aims of the research
- The research design, including methods to be used
- What you believe will be the strengths as well as limitations of the study
- References

### **ACTIVITY**

Go to internet and download an article from the South African education journal. Look at the format of the article. Consider whether you think the article contains a good account of:

- the rationale of (or reasons for) doing the research,
- the relevant literature,
- the research design,
- the way participants in the research were selected,
- participants' responses to the questions asked during the research process,
- the development of the research results (conclusions).

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| ACTIVITY: DOING A COMPANY NEEDS ANALYSIS  |
| In this activity we want you to imagine that you are employed by a company and  |
| 1. you want to persuade the management that there is a need for ABET or for some other training, OR   |
| 2. the company is about to start a training programme and you want to make sure that it is relevant to workers' and management's actual needs, OR   |
| 3. you think there is a lack of motivation amongst the staff and you want to find out why and what to do about it, OR   |
| 4. the company is restructuring and needs to know the existing skills amongst the workforce and which skills are missing.   |
| Design a research project aimed at organising a needs analysis for this company based on any one of the 4 goals above. Explain and justify the details about qualitative and/or qualitative) research methods to be used during the research process, and how you (or any researcher) will go about doing the research. |
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# **UNIT 5** Research ethics

# **Learning outcomes**

At the end of this unit you will be able to:

- > Consider ways of applying ethics (and ethical practice) in any research activities.
- > Be able to talk about issues connected with principles of research ethics.
- > Understand some of the values involved in doing Participatory Action Research.

#### INTRODUCTION

The term "ethics" comes from the Greek ethos, meaning, and "character". This implies that ethics is somehow related to character traits or "good qualities" that a person has that lead them to act ethically. What does it mean to act ethically? One way of looking at this is that our *action contributes to human well-being* of various people concerned. Another way of looking at this is to consider the ethical principles of Ubuntu, where we recognise that our human relationships and connections with others cannot be separated from the development of ourselves (Nafakho, 2006). This also has implications for how we act towards others during the research process (see, for instance, Collins, 2000; Ladson-Billings, 2003). Basically, research ethics is concerned with what is called "right and proper conduct" – even if we can never be sure exactly what this means in specific contexts (Burton & Bartlett 2008:31).

#### 1. SOME ETHICAL PRINCIPLES FOR THE CONDUCT OF RESEARCH

Various researchers have identified a number of principles that they see as connected with "being ethical". These are:

- Informed consent
- Confidentiality and privacy
- Honesty and openness
- Access to findings
- Avoiding harm

However, there is still unclarity regarding ways of applying the principles in specific contexts of research. We explain this below.

#### 1.1 Informed consent

Informed consent means that when a researcher asks participants to participate in the research they need to get their *consent* (agreement to participate) based on giving participants *an idea of what the research is about and what their "rights" are*.

For example, a letter can be written explaining what the research is trying to explore, and mentioning to participants that participation is completely voluntary. The letter would also mention that if there are any questions that the person prefers not to answer, they can skip them. Furthermore, it mentions that if people agree to start participating, they can still withdraw at any time. People are then asked to fill out a questionnaire or participate in interviews or focus groups etc., after they have shown that they understand what is involved.

Sometimes the letters are sent out before the research proceeds. At other times (especially in more oral cultures) people are *told orally* what the research is about and what is going to be expected of them. They must of course be told that they must not feel pressure to participate. In addition, they should be told that if they start answering questions and do not wish to continue, they have the right to withdraw. Furthermore, they have the right to decide not to answer some questions on the questionnaire (or interview situation) while continuing to answer others. (McKay and Romm, 2008, used this approach in researching HIV and AIDS in the informal sector in Zambia. They made

sure that the research assistants administering the questionnaire told respondents at the beginning that not all questions of the questionnaire had to be answered and that some of them could be skipped if they felt uncomfortable in answering them. They also added that participants should feel free to ask any questions during the process and afterwards.)

## 1.2 Confidentiality

Regarding confidentiality and privacy, participants need to be told that the information that they provide about themselves (or their views) will not be shared with anyone besides the researchers *unless they specifically want their name to be mentioned.* (Sometimes people want to be known for their contribution to the research.)

The way in which confidentiality and privacy is usually kept, is by keeping names anonymous (unknown) and also by making sure in the report that even if we give false names (called pseudonyms) a reader will not be able to work out from the report who is the source of the information (Descombe, 2002: 180).

## 1.3 Honesty and openness

Honesty and openness seem like obvious principles. But consider the case where we want to try to find out how much (and what level) of domestic abuse is taking place in families in the community. We may not want to be open about our research goal, because this may make the people whom we are researching "put on an act" in front of us. So we may need a different approach, where not everyone is aware of what we are trying to study. It could be argued that the results of the research will ultimately be beneficial to the people who have experienced abuse. For instance, we may suggest that social workers play a more active role if we find that there are serious cases of abuse.

Generally the principle of being honest about our research goals is still a good one to remember, unless there is a good case for why we feel that we need to operate more covertly (that is, with less openness) in certain circumstances.

# 1.4 Access to findings

Access to findings is a principle that we also can think about in more depth. Often researchers create reports that are "put on a shelf" and very few people have access to them. Also, remember in Unit 2 we stated that it may be a good practice to allow participants and other audiences to help us to make sense of our findings. This means that we do not just present our findings as conclusions, but we can present them as statements that we want to discuss further in workshops and other community forums. (See again Acquah, 2007; Romm, 2010.)

So the basic idea of giving people access to findings can be dealt with in various ways by researchers. Some researchers believe that we need to make an effort to enable the original participants and others to *discuss the findings* (including to disagree with the interpretations that may be given by the researchers and to hold a dialogue around different ways of seeing the findings).

## 1.5 Avoiding harm

Avoiding harm is another principle that seems obvious. But remember that sometimes we might need to *decide between conflicting values*. For example, say that we want to find out if there is lack of financial reporting in various ABET centres, so that budgets are being misspent. If our exploration of this harms the centre managers but is beneficial for teachers and learners, what should we do? Should we stop the research on the grounds that it may harm the reputation of certain centre managers if it is found out that there is poor financial control?

In short, from the above examples we can see that being "ethical" is not as easy as following a recipe book of "what to do"! You will need to think for yourself in specific situations what the "best" course of action is to take. This will mean considering a variety of factors and then making your own judgement. What is important is that you can justify your judgement if you are asked to do so (and also you can justify it to yourself!). There may be advantages and disadvantages of any course of action. You need to think about these before making a judgement.

#### **ACTIVITY**

| Think of a situation where you have had to decide what to do because there was not ar obvious "right" way to act. Did you discuss it with various people to get their differentiews on the matter? What were their views? Did this discussion help you when you made your decision? Write your story below. |
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#### 2. RESEARCH ETHICS LOOKED AT AGAIN

In this section we are going to discuss in a bit more detail how ABET practitioners might conduct themselves in an ethical way when they do research.

Burton and Bartlett (2009: 29) point out that ethics should be a central consideration for all education researchers. We need to be aware that research, if conducted without care and consideration, can have potentially harmful effect for those taking part, even if we do not intend this to occur.

For instance, take the case of a person being interviewed who feels that she is sharing details about an abusive relationship with her partner, and the researcher seems to have no emotion when "taking notes". This can leave the person feeling that they have been used by the researcher, rather than that the researcher has shown some sense of caring. This alone can leave the person feeling psychologically harmed through the research.

As researchers you must consider the rights as well as the feelings of the individuals who may be giving you data or sharing their views. (This is sometimes called an ethics of care, as explained by Collins, 2000.)

Descombe (2002:182) mentions too that the normal and routine aspects of people's lives deserve to be considered as valuable. Researchers should not disrupt people's lives just so that they can do their research. As Descombe notes, the way that researchers make phone calls or personal visits can prove to be ill-timed and a nuisance, invading territories of time and space in an unwelcome way.

In recent times, although responsibility for ethical conduct of research rests with the researcher, it is becoming increasingly common for researchers to need to gain formal approval from a research ethics committee before they can embark on their research. For instance, the College of Education (and all Colleges at UNISA) has such a committee. The committee screens proposed pieces of research to check that they will accord with ethical principles for research. Universities in different parts of the world have different policies in this respect. For example, in Canada one of the universities (Waterloo University) mentions on its website that only specific projects need to be fully screened by the committee, namely, those that involve very sensitive interview or questionnaire questions (for instance, about experiences of abuse, etc.) or research processes that could be physically harmful or risky.

#### 3. NEGOTIATING ENTRY INTO THE FIELD

Sometimes when you go to the field to conduct an investigation, you will have to negotiate for access. As an ABET practitioner, you will need to have a letter to show that you are a UNISA ABET student and you are doing research. The letter could, for instance, be written to the district official, mentioning that you wish to do research in certain adult learning centres and asking if s/he can arrange that you meet with some centre managers to discuss this. The centre managers can in turn arrange with educators and learners.

The letter could read something like this:

### Dear Sir/Madam

This year I am doing a research project aimed at helping educators at various adult learning centres to consider how they can make better use of storytelling as part of the learning process for adults. I would like you to work with about three centres, in an urban, peri-urban and rural area. Is it possible for you to arrange that I can meet with some centre managers to discuss the participation of the teachers and learners?

I will meet with the teachers and learners (in the classroom) three times a week, for one hour at a time, until such time as they feel that they have learned sufficient about the use of storytelling. They of course will have the right to withdraw at any point that they wish to if they are not finding the process worthwhile.

I am hoping also that we can share the results of the exercise with other teachers from other centres too, who might be able to learn about strategies that we have come up with to make better use of storytelling for learning purposes.

The teachers and learners in the centres where we do the research can remain anonymous in my written report – unless they want their names mentioned.

Is it possible for us to meanwhile set up an appointment so that I can tell you more about the planned research?

Sincerely,

(your name)

#### 4. PARTICIPATORY ACTION RESEARCH

The example that we gave in the letter above was actually an example of a researcher who was trying to set up what is called an action research approach. Action research means that the researcher works with a number of people in the field so that together they can come up with ways to improve their practices or some conditions in their lives. It is called "participatory" because the researcher does not try to control the process. S/he acts as a facilitator facilitating a process where people (participants) try out ways of doing things and then discuss together the effects of these. Then they try out new ways again, and discuss these again, until they reach a point where they feel that they can continue without the involvement of the researcher who set up the process.

So the researcher invites the participation of people in the process of *exploring a topic* in which they are all interested and which is something relevant to their lives. (Sometimes these people are called "co-researchers" which means that they are all together in the project – with no one of them being called the prime researcher.)

However, the researcher may agree that they will be the person who documents the process, because the other participants may not have the time for this. Alternatively, maybe they all will document it together, if people all want to contribute to this writing up of the research.

The roles of the various people in action research are negotiated until agreement is reached on who will do what.

#### 4.1 Participatory Action Research in communities

It is also possible to undertake Participatory Action Research so as to ensure community participation even among communities where many members have little or no education. We will look at strategies in much more detail next year. But we are mentioning this here so that you will be aware that this is often also considered ethical

research practice because it is aimed at *empowering community members with skills to participate in research and also in planning*.

One of the ways of increasing community participation is to act as a facilitator (or invite other members of the community to become facilitators) in holding group discussions such as focus groups. In such groups they can share their concerns about some problems that they want dealt with. And they can think about who can be involved in trying to solve the problems. As more and more people become involved, more ideas and views can be discussed and people can work out possible solutions.

Participatory Action Research tries to make sure that no-one dominates with her or his views or solutions and that people are all given the chance to participate. Think about what might have been the case if the housing project we mentioned in Unit 2 was done as part of a *participatory research project, rather than a top-down planning exercise*. Instead of the company being told to go ahead and build houses,

the community could have been involved in researching how money could be spent on improving facilities in the community. This kind of research is therefore relevant when, for instance, you want to:

- Start a community-based project, or
- Persuade government or other organisations to make sure that planned projects do not depend only on top-down planning.

# Activity

You have been approached by some workers in a specific company to write a letter to the company. They have heard that the company is planning to start a training programme and they want to ensure that the research is relevant to their training needs. Write a letter to the human resources manager of the company explaining that you would like to undertake a "needs analysis". Mention that you would like to do so by speaking in-depth to the workers in the relevant section of the company about skills that they think they need. Indicate to the manager that you will of course want to speak to relevant managers of various sections too.

## 5. SUMMARY: RESEARCH ETHICS IN PRACTICE

Remember, research is fun. Be creative and use your imagination to come up with interesting and useful topics when researching in ABET. There is a lot of room for you to do original research by asking stimulating questions and using a variety of research methods. The process you each follow will be different. You will speak to different sorts of people in different contexts and ask them different questions. You will learn a lot from the experience and we hope you will put it to good use in your work as an ABET practitioner.

So when setting up any research project go out and enjoy yourselves, but remember that you must respect the people with whom you engage in your research. Treat information from individuals as confidential if they request this because mentioning their names might embarrass them or create problems for them. People may refuse to answer your questions – they are within their rights to do this; so do not try to persuade them. Rather look for someone else to whom you can speak. Similarly, some people may not give you access to private documents, they have a right to do this too. Look for alternative documents if you can.

If people want to ask you questions during the research process, show that you are willing to answer them. Actually, you should invite people to ask questions so that they do not feel that you are simply there to extract information from them.

They may be asking you questions because they feel that your answers may be helpful to them in some aspects of their lives. Treat your research as a process of developing more human relationships.

#### 6. A FINAL IMPORTANT REMINDER ON PLAGIARISM

We are here using this section to remind you that as an ethical issue, the Department of ABET places great emphasis upon integrity and ethical conduct in the preparation of research activities. An understanding of the vital importance of responsibility and professionalism in this regard is part of what a university education should provide. It is very important to us that all our ABET practitioners know how secondary material (obtained from books, research reports, etc.) should be used. There are specific scholarly methods of presenting and acknowledging references. If you copy something out of a book or an article or from a website without acknowledging the source and pass it off as your own, that constitutes plagiarism.

Research assignments in which plagiarism (the unacknowledged use of secondary material) can be demonstrated will undoubtedly fail and will in all likelihood be given 0%. In effect, you are stealing something that belongs to someone else. If you paraphrase any material, that is, change the wording slightly or use a line of argument without acknowledging it, that also constitutes plagiarism. Please remember that if you make yourself guilty of plagiarism it is regarded as serious form of misconduct. Our advice is therefore to be very careful when using others' material: make sure that you give proper references to it. If you take ideas from another source even though it is not the exact words, you need to still put the reference in brackets.

# **REFERENCES**

Acquah, B.K. 2007. Community involvement in social research in Botswana, in A. Rwomire & F.B. Nyamnjoh (eds.), *Challenges and responsibilities of social research in Africa: Ethical issues* (pp. 127-132). Addis Ababa: The Organisation for Social Research in Eastern and Southern Africa (OSSREA).

Burton D., & Bartlett S. 2009. Key issues for education researchers. Sage: London.

Collins, P.H. 2000. *Black feminist thought: Knowledge, consciousness and the politics of empowerment* (2<sup>nd</sup> edition). London: Harper Collins.

De Vos A. (ed). 2010. Research at grassroots: a primer for the caring professions. Pretoria: Van Schaik.

Descombe M. 2002. *Ground rules for good research*. Maidenhead: Open University Press.

Falsifiability http://rationalwiki.org/wiki/Falsifiability Accessed on the 13 May 2011

Kuhn, T. 1962. *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Kuhn, T. 1970. (2<sup>nd</sup> edition enlarged). *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Ladson-Billings, G. 2003. Racialised discourses and ethnic epistemologies, in N.K. Denzin & Y.S. Lincoln (eds.), *The landscape of qualitative research: Theories and issues* (2<sup>nd</sup> edition) (pp. 398-432). London: Sage.

Leedy, P.D. &Ormrod, J.E. 2005. *Practical research planning and design*. (8<sup>th</sup> edition). New Jersey: Pearson Prentice Hall.

McKay, V.I. & Romm, N.R.A. 2008: Assessment of the Impact of HIV and AIDS in the informal economy in Zambia, Lusaka: International Labour Organisation.

Miller, R.L., & Campbell, R. 2006. Taking stock of empowerment evaluation: An empirical review. *American Journal of Evaluation*, 27(9): 296-319.

Nafukho, F.M. 2006. Ubuntu world-view: A traditional African view of adult learning in the workplace. *Advances in Developing Human Resources*, 2006, 8: 408-415.

Onwuegbuzie, A., Leech, N.L. & Collins, K.M.T. (2012). Qualitative analysis techniques for the review of the literature. *The Qualitative Report* 17 (article 56): 1-28.

Popper, K.R. 1969. Conjectures and refutations. London: Routledge & Kegan Paul.

Romm, N.R.A. 2010. *New Racism: Revisiting researcher accountabilities*. New York: Springer.

Flyvbjerg. B. 2006. Five misunderstandings about case-study research. *Qualitative Inquiry*, 12: 219-245.

Youth Employment. Asikhulume@sabc.co.za, 12<sup>th</sup> June 2011, 18h30-17h30).

# **GLOSSARY**

case study

ABET the general conceptual foundation towards lifelong learning and

development – comprising knowledge, skills and attitudes required for social, economic and political participation and transformation

applicable to a range of contexts.

research systematic process of collecting; analysing; and interpreting

information in order to increase our understanding of a

phenomenon.

quantitative aimed at obtaining information about numbers; statistics.

qualitative aimed at listening (deeply) to people's opinions; views; meanings;

stories in relation to their saying or doing something.

falsifiability the idea – developed by Karl Popper – that a scientific theory or

working framework must be able to explore and predict the occurrence of phenomena, such that if the predicted events do not occur, the theory can become refuted (rejected). According to this idea, science is seen to proceed well when scientists are prepared

to refute (falsify) theories that do not stand up to testing.

paradigm the idea that worldviews can differ from one another and that there

may be more than one equally credible way of seeing the world. This is linked to the idea that no framework can be conclusively shown to be superior to others in understanding the world. This is also linked to the idea that we must show humility when making any claims and must be open to hearing different perspectives.

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research strategy where the researcher aims to study one case

(unit of study) in-depth.

literature review an examination of literature (books; papers read at conferences;

seminars; workshops; journals; articles, etc.) that are relevant to the topic, to identify what research has been undertaken and what

research still needs to be undertaken.

ethics the systematic study of the concepts of good, bad, right, wrong –

and the general principles that justify these concepts.

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