MULTILINGUAL NUTRITION LABELLING AND CONSUMERS' HEALTH IN SOUTH AFRICA: AN IMPACT ASSESSMENT

by

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DECLARATION

I hereby declare that this dissertation submitted for the degree M Tech: Language Practice, at Tshwane University of Technology, is my own original work and has not previously been submitted to any other institution of higher education. I further declare that all sources cited or quoted are indicated and acknowledged by means of a comprehensive list of references.

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LEHLOHONOLO MOTAKE

This study is dedicated to:

My inspirational mother

Limakatso Maria Motake

and

My adoring sister

Karabo Lebohang Motake

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ABSTRACT

The research investigates the impact of monolingual (English) nutrition labelling on consumers' health in South Africa. The focus of the study is to determine if the use of one language on nutrition information labels has an impact on consumers' behaviour and understanding of nutrition information labelling messages, and if their behaviour affects their health. The investigation followed a two-pronged approach to data collection called triangulation: A questionnaire survey (circulated to 100 respondents from semi-urban and urban areas), and semi-structured interviews with dieticians working in public health facilities for their professional view on nutrition, language and health. The two data collection tools produced rich data that addressed the main purpose of the study.

The research made the following findings: English, exacerbated by its technicality, and as the only language of nutrition information labels, acted as a barrier to consumers using nutrition information labels with understanding. The respondents' level of use and understanding is shown to be influenced by a number of secondary moderators for the independent variable such as level of education and health relations, health and income and language. Ninety-nine per cent (99%) of respondents advocated for the development and use of indigenous languages on nutrition information labels, thereby suggesting the introduction of multilingual nutrition information labels. The common view among respondents was that indigenous languages needed terminological development for a successful transference of nutrition information label messages to other languages.

The researcher's primary finding is that monolingual nutrition information labelling acted as a barrier to consumers accessing critical information communicated on nutrition information labels and thereby negatively influencing the consumers' ability to make knowledge-based decisions when purchasing food products. The research makes the recommendation that multilingual nutrition information labelling should be introduced to aid consumers, with comprehensible access to nutrition information label messages.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND AND RATIONALE

A large percentage of South Africans purchase food products on a daily basis. The choice of such food products is influenced by varying factors which are centred on the concept of accessibility of those food products. For the purpose of this study, the term "accessibility" means "availability", "obtainable", "simple", "understandable" or "comprehensible" (Tulloch, 1992:10). In most cases, food products are available and obtainable, but the messages on the food products, owing to the language used, and the technical nature thereof, are not always understandable and comprehensible to consumers when purchasing food products. The government has taken steps to recognise the need to avail understandable and comprehensible messages to consumers by introducing The Consumer Protection Act, Act No. 68 of 2008 (2008:32). The main clause of the Consumer Protection Act aims and takes into cognisance that:

- It is necessary to develop and employ innovative means to protect the interest of all consumers;
- It is necessary to improve access to, and quality of, information that is necessary so that consumers are able to make informed choices according to their individual needs.

Over the last several years, there has been an increase of several chronic diseases that are linked to dietary and lifestyle factors (Drichoutis, Lazaridis & Nayga, 2006:02). Leal (2010:02) is of the view that more than half of the world's population is overweight. In South Africa, both under- and overnutrition exist. At a national level, more than half of the females are either overweight or obese, while children suffer from undernutrition.

As a result, there is growing demand for full information about the products people eat. According to Van Dyk (2007:04), "...the public have the right to know exactly what they are eating, down to the last milligram of sodium and gram polyunsaturated fat". A nutritional label is often employed as a vehicle of

information about the nutrient content of food and as a facilitator for consumers' food choices.
According to Baltas (quoted by Čuk, 2009:39), to see whether a nutrition label is to be successful it has to be evaluated on four levels:

- Attention is easily achieved using colour and non-technical appearance which aid in drawing attention regarding key nutrients of products;
- Acquisition can be improved using appropriately designed graphic display for easy decoding and encoding of the information by users;
- Comprehension is achieved by providing the label in an understandable language to help users with data interpretation;
- Effectiveness can only be achieved when all factors concerning labelling are addressed in dealing with awareness and the need users place on the value of labels.

In South Africa, where there are differences in language and culture within which the languages operate, the use of monolingual nutrition information labelling presents a challenge to consumers when purchasing food products, thus being in conflict with some of Baltas's evaluation levels, especially comprehension.

1.2 CHAPTER OVERVIEW

This chapter forms the foundation of the study and introduces a world view of the research context, and sets the research by focusing on the study background, context of the study problem, problem statement, the purpose of the study, research aims and objectives, a brief view of the study methodology and the conclusion. The chapter further outlines an overview and organisation of the remaining chapters.

Chapter 1 forms the foundation of the study. It introduces a world view of the research context and focuses on the rationale, the study problem, statement and hypothesis, purpose of the study, research aims and objectives, methodologies and conclusion. Chapter 2 positions the study by examining the literature that guides the study. It covers legislation and external factors that influence the need for the study on multilingual labelling. Chapter 3 deals with research design and methodology. It discusses and justifies sampling procedures, the choice of data collection tools and data analysis approaches. Chapter 4 presents analyses and interpretation of the study data, while Chapter 5 contains comprehensive and coherent presentation of the study findings and contextualisation of the results. Lastly, Chapter 6 presents a summary, recommendations and study conclusion based on the interpretations derived from the analysis of the data

1.3 THE RESEARCH PROBLEM AND HYPOTHESIS

Research conducted indicates that nutritional labels play an important role in providing relevant nutrition information to consumers (Prathiraja & Ariyawardana, 2003:35). That being the case, the researcher points out that in South Africa, the communication is not always understood, owing to the language and the technicality of the language used, therefore hindering access to and quality of, the information communicated to consumers.

A research problem is often expressed as a general question about the relationship between two or more variables (Bless & Higson-Smith, 2000:25). From the rationale in 1.1, the research question for this study can be stated as follows:

To what extent does monolingual nutrition labelling in South Africa act as a barrier to effective nutrition label usage by consumers?

In order to define a hypothesis as a suggested answer to this *"study problem"*, the researcher more definitively formulated and restated the problem in the form of a declarative statement, not a question, which can predict and be tested statistically (Du Plooy, 2002:73). According to Bless and Higson-Smith (2000:33), hypotheses are tentative, concrete and testable answers to such research problems. Walliman (2011:63) is of the view that the essential nature of a hypothesis is that it must be falsifiable. That means it must be logically possible to make true observational statements that conflict with the hypothesis. The main characteristics of a hypothesis are:

- it must be logically consistent;
- it must be testable;
- it must be written as a concise or succinct statement;

- words used to represent constructs as variables must be operational (Du Plooy, 2002:73-74).

The evidence stated above educated the researcher to formulate the study's hypothesis as follows:

Multilingual nutrition labelling in South Africa will cause more effective nutrition label usage by consumers.

The hypothesis addresses the core of the research problem. To clarify the general purpose of the research, the researcher set out the anticipated relationship between two variables in a hypothesis. In this study, there is a clear causal effect between two variables: the decrease of monolingual nutrition labelling will cause an increase in effective usage by consumers.

Thus, the decrease of monolingual nutrition labels in South Africa, and consequentially the increase of multilingual labels (the independent variable) will result in more effective nutrition label usage by the consumer (the dependent variable). Thus:

- The independent variable (a) = the existence of monolingual nutrition labelling in South Africa;
- The dependent variable (b) = more effective nutrition label usage by consumers.

As noted by Du Plooy (2002:71), the variables apply to a cause-effect relationship between phenomena, events or actions. In this study, it is hypothesised that: *Multilingual nutrition labelling in South Africa will cause more effective nutrition label usage by consumers*. Thus, if the dependent variable (b) is to change for the better, there is a need to manipulate the independent variable (a). Bless and Higson-Smith (2000:28) state that: "Most of the phenomena studied in social sciences cannot be explained by the effect of only one independent variable. The variation of one factor can usually only partly account for the variation in the dependent variable. More of the variation will be explained or accounted for by introducing secondary independent or moderator variables".

In social research, researchers overcome that kind of problem through the control of certain variables. Bless and Higson-Smith (2000:29) explain that control variables are those factors which are controlled by the researcher to cancel out or neutralise any effect they may otherwise have on the observed phenomenon. Therefore, the researcher proposes the following as possible secondary moderators for the independent variable (a) to change for the better:

- Changing to multilingual nutrition labelling in South Africa;
- Creating technical nutrition terminology for indigenous languages in South Africa;
- Introducing "simple" English as Plain Language (see p. 20) on nutrition labels;
- Raising the level of education and socio-economic levels in South Africa.

The researcher works with a directional hypothesis, as on the one hand, according to Du Plooy (2002:76), directional hypotheses are used in research to predict how variables are related. On the other hand, Bless and Higson-Smith (2000:34) are of the view that directional hypotheses are more precise and give more information. The researcher predicts the type of relationship between variables in the study by indicating the effectiveness in the hypothesis regarding dependent variable (b), therefore, supporting the use of directional hypothesis.

1.4 AIMS AND OBJECTIVES

The research aims to assess the impact of monolingual nutrition labelling on consumers' health and to investigate the extent to which the language used in food product labelling contributes to choices made by ordinary South Africans when purchasing domestic food. In addition, the research intends to evaluate the results of those choices made on the degrading health status of South African citizens. Lastly, the study will source out solutions to language factors that hinder access to and the quality of information that is necessary to consumers when labelling products.

Objectives of the study are as follows:

- To identify current consumers' attitudes to and understanding of nutrition information labelling language, with particular reference to nutritional information;
- To determine whether nutritional labels affect consumers' choice and improve nutrient intake and diet quality;
- To prove that the language acts as a barrier, and utilisation of multilingual labelling can improve consumers' use of nutritional information.

1.5 RESEARCH DESIGN AND METHODOLOGY

A research design has two interpretations. The one pertains mainly to research management or planning. The other relates directly to the testing of hypotheses. This is the interpretation that the researcher will follow.

This research is based on the investigative application of a multi-method approach called triangulation*.* The social scientist defines triangulation as the mixing of data or methods so that diverse viewpoints or standpoints cast light upon a topic (Olsen, 2004:3). Du Plooy (2002:40) states that the triangulation method increases the reliability and validity of one's observation, analysis and findings. In this research project, the researcher will apply the elements of both qualitative and quantitative research methods, which is in line with Du Plooy's (2002:81) argument that the two approaches should not be seen as mutually exclusive and that, in reality, a research design often includes characteristics of both approaches.

The researcher will employ the following data gathering methods:

1.5.1 Literature review

Mouton (2001:87) explains that in a literature review, the main aim is to establish what has already been done in a particular field of study – focusing on the most recent, relevant studies. Consequently, the researcher will identify and analyse data that is related to the current study. Du Plooy (2002:57) states that such material can either be in published format, i.e. articles in professional journals, or in an unpublished format, i.e. dissertations, theses and papers.

The researcher will then engage in detailed reading of relevant literature in the field of language and nutrition information labelling. The various acts and regulations concerning nutrition information labelling, the language issue and their impact will be studied and analysed in order to gain further insight and understanding.

1.5.2 Semi-structured interviews

Interviewing is probably the most common data collection technique in social sciences. Fylan (2005:65-66) explains that semi-structured interviews are simply conversations in which the researchers know what they want to find out, and all are conducted in relatively the same way as to generate reliability, using set questions and set response codes. The researcher will utilise semi-structured interviews as they have a high response rate since there is a face-to-face encounter with participants which facilitates cooperation (Diko, 2005:46).

1.5.3 Self-administered questionnaire

For the current study, a self-administered questionnaire will be circulated to the population, drawn from the sampling of respondents, to measure their perceptions and attitudes towards their language being used in product labelling and their understanding of the current labelling language.

1.5.4 Population sampling

Du Plooy makes the point that it is often not practical, feasible or financially viable to investigate an entire population (2002:99). When sampling, the researcher studied the characteristics of a subset selected from a large group in order to understand the characteristics of the large group. In sampling, a categorical distinction is usually made between probability and non-probability sampling (Du Plooy, 2002:106; Bailey, 1987:87&92).

According to Johnson and Christensen (2012:219) a simple random sample is a sample drawn by a procedure in which every member of the population has an equal chance of being selected for the study. A simple random sample is used in the research because the study's population is uniform and has similar characteristics (Walliman, 2005:276).

A questionnaire will be circulated to 100 respondents who should at least have a basic literacy rate and belonging to either the Nguni or the Sotho language grouping. The questionnaire will be administered in hard copy, and the completed questionnaires will be returned to a central place by the respondents for reasons of protecting and ensuring respondents' anonymity and confidentiality. The interviews will be conducted with dietician specialists. These specialists will be interviewed to gather information as to whether language does play a role in people's understanding dietary requirements and whether they struggle to explain concepts that are provided only in English to their non-English speaking clients. Dieticians were selected from public health care facilities around the Pretoria region as it is the accessible region to the researcher.

1.6 DATA ANALYSIS

In the view of Du Plooy (2002:93), in order to enable the researcher to provide recommendations and reach conclusions, data sourced from completed and returned questionnaires and that from interviews has to be interpreted by the researcher. Analysis of data in this research will involve three major steps: cleaning and organising, describing, and testing hypotheses and models (Trochim, 2002:01).

1.7 RELIABILITY AND VALIDITY

According to Du Plooy (2002:124), measurement validity deals with the degree to which the measurement used actually measures what is intended or claimed to have been measured. He further states that by claiming that a measure is valid, it is implied that it is reliable. In other words, a measure cannot be valid unless it is also reliable.

1.8 ETHICAL ISSUES

According to Orb, Eisenhauer and Wynaden (2000:93), ethical issues are present in any kind of research, and pertain to doing good and avoiding harm. In common sense approach, ethics may mean the rules for distinguishing between right and wrong (Kar, 2011:24). Gillespie (1995) explains that in general, ethics emerge from value conflicts and in research specifically these conflicts are expressed in many ways: individuals' rights to privacy versus the undesirability of manipulation, openness and replication versus confidentiality, and others.

Du Plooy (2002:90) states that when people are involved as subjects, respondents or participants, it should be stated how their human and civil rights will be protected. He further voiced that voluntary consent and informed consent amongst others need to be addressed by the researcher. Informed consent is key to ethical research and it demands more than disclosure, but the research participants should also understand the essential disclosed information (Flory & Emanuel, 2004:1593). Direct informed consent will be obtained from the people who will be involved personally in the research. The kind of participation expected from them will be explained to the respondents, and they will be requested to sign a consent form.

Emanuel, Wendler, Killen and Crady (2004:935) state that researchers have ongoing obligations to participants and an essential obligation is to develop and implement procedures to maintain the confidentiality of information collected. The respondents' completed questionnaire will only be accessed by the research team, and their responses and identity will not be revealed to anyone outside the research team. The completed questionnaires and recording tapes will be stored in a secure place.

Special attention and respect must be given to ensure that individuals are aware of their right to refuse – and actually are free to refuse – to participate or withdraw from the research (Emanuel *et al.,* 2004:935). The researcher will ensure that participants understand their rights while taking part in the study and are made aware that their participation is voluntary. They will be informed that they may withdraw from taking part in the study at any stage of the research.

There is considerable confusion regarding the ethical appropriateness of using incentives in research (Grant & Sugarman, 2004:717). It is worth noting that for participating in the study, respondents will not receive financial compensation or incentives. The decision is educated by Grant and Sugarman (2004: 717) who are of the view that, for the most part, the use of incentives in research is innocuous; but there are instances where it is not. Grant and Sugarman (2004:717) further state that previous work on determining whether incentives are unethical considers them as a form of undue influence or coercive offer.

The participants will be informed of any new discovered information that could result in a risk(s) and affect ethical issues that arise during the course of the research.

1.9 ANTICIPATED FIELD PROBLEMS

The fact that not all people will be interested in taking part in the study is taken into consideration, so participant identification may cause problems. The study will utilise questionnaires as a result. There may be cases where the language used in those questionnaires is misunderstood by the participants, and that may lead to out-of-context responses.

1.10 SIGNIFICANCE OF THE STUDY

- The findings of the proposed study should reveal the extent to which labelling language impacts on the choices of South Africans when purchasing domestic food products, and the impact of their choices on their health;
- The research study will reveal if language used in labelling food products acts as a barrier to communication between consumers and the products they purchase;
- The researcher hopes that, if labelling language is a problem, the study will provide relevant solutions and a better understanding of the need to utilise understandable labelling language in providing information.

1.11 SCOPE AND LIMITATIONS OF THE STUDY

The research will focus on literate and semi-literate adult respondents, and these respondents have to be members of the two language categories (Nguni and Sotho groups) chosen to be the subjects for the study. The respondents from the two chosen language categories will be based on availability and willingness to partake in the research. The study will be conducted in Pretoria, Gauteng province as it is accessible to the researcher. The researcher makes known the fact that the research sought responses from people, and there is no guaranteed way of ensuring that real answers were given. The study employed a closed-ended questionnaire which made it difficult for the study to examine respondents' complex issues and to reveal underlying opinions. The researcher became limited to knowing if all respondents understood and interpreted each question in the same way.

1.12 CONCLUSION

The aims and objectives of this study are set forth in the present chapter. The problem statement prompted by monolingual nutrition information labelling and its impact on the health status of South Africans has been voiced. The research design used to answer the research question is a two-pronged approach, and has opted for data collection which employs triangulation.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

A thorough, sophisticated literature review is the foundation, inspiration and a pre-condition for substantial research (Bootie & Beile, 2005:03). In an effort to advance collective understanding, the researcher seeks to review literature to understand what has been documented, focusing on both the strengths and weaknesses of existing studies and what they might mean for the current research. The researcher reviews world-wide works on nutrition labelling, its use and how multilingualism has been addressed when it comes to matters pertaining to labelling language.

A special focus in the research is based on establishing the secondary moderators for the independent variable (a). The study reviews the South African setting relating to health economics, health and education, and multilingualism which affects the use of nutrition labels. The current language situation is also reviewed, comparing the changes from the first census results to the most recent results, and how they impact on this research. Bootie and Beile (2005:03) observed that not understanding the prior research, places a researcher at a disadvantage, which means that the researcher cannot perform significant research without first understanding the literature in the field.

2.2 CHAPTER OVERVIEW

The main aim of this study is to assess the impact of nutrition labelling on consumers' health in South Africa. This chapter deliberately seeks to highlight, distinguish and compare literature and concepts related to the focal theme of the study. The chapter will review the literature on theories that will support the need for multilingual labelling in South Africa.

2.3 DEFINITION OF KEY CONCEPTS

For the purpose of this research, the following key concepts will be explained and defined (as they will be interpreted in this study):

- **Nutrition labelling**

According to the Foreign Agricultural Service U.S Mission to the European Union (2010), nutrition labelling means "any information on the label that relates to energy value and to the following nutrients: protein, carbohydrate, fat, fibre, sodium, vitamins and minerals present in significant amounts".

In this study, the applicable definition of nutrition labelling is a description on a food product intended to inform the consumers of the nutritional properties of food, including claims, on the front label, the nutrition facts panel, and adhesive labels applied on packs.

- **Multilingual nutrition labelling**

Multilingual nutrition labelling is a description on a food product intended to inform consumers of the nutritional properties of food, including claims on the front label, the nutrition facts panel, and adhesive labels applied on packs written in several different languages.

- **Consumer**

The South African Consumer Protection Act (2008:18) details the working definition of consumer in the current study as:

(a) a person to whom those particular goods or services are marketed in the ordinary course of the supplier's business;

(b) a person who has entered into a transaction with a supplier in the ordinary course of the supplier's business, unless the transaction is exempt from the application of this Act by section 5(2) or in terms of section 5(3);

(c) if the context so requires or permits, a user of those particular goods or a recipient or beneficiary of those particular services, irrespective of whether that user, recipient or beneficiary was a party to a transaction concerning the supply of those particular goods or services; and

(d) a franchisee in terms of a franchise agreement, to the extent applicable in terms of section 5(6)(b) to (e).

- **Plain language**

The Administrative Manual (2009:02) defines *plain language* as a writing style that simplifies and organises use of language to help ensure that written communications are clear and understandable to the reader.

- **Health**

The World Health Organisation (WHO) (quoted by Ndlovu, 2009:13) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". According to Ndlovu, this definition implies that WHO views health holistically and incorporates social and economic well-being.

Furthermore, Ndlovu (2009:13) points out that in the Western health systems, health is defined as the absence of disease, which entails that the human body is separated from its social context in the provision and maintenance of health. The Concise Oxford English Dictionary (2008:658) defines health as the state of being free from illness or injury, which is in support of the point raised by Ndlovu of the Western health system take on separating the human body from its social context.

Since the current research deals with access to information in promoting the health of consumers, the definition provided by Baer, Singer and Susser (quoted by Ndlovu 2009:13) as cited from the critical medical anthropologists, will be the working definition for the term *health* in this study. Ndlovu defines health as "access to and control over the basic material and nonmaterial resources that sustain and promote life at a high level of satisfaction".

This definition is relevant for this study in the South African context, because most consumers still do not have access to information on nutrition information labels, and thereby lack control over basic and non-material resources that sustain and promote life.

- **Language categories**

Language categories refers to the language groupings as stipulated by the Constitution of South Africa. The categories are Tshivenda, Xitsonga, English, Afrikaans, the Nguni group (isiXhosa, isiZulu, isiNdebele, Siswati) and the Sotho group (Sesotho, Setswana, Sepedi).

- **Language region**

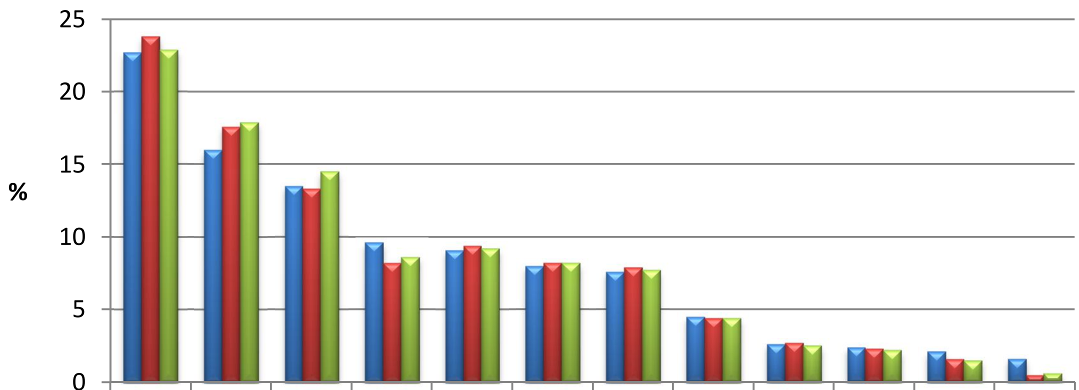
Language region refers to the official language(s) with dominant speakers in a province as determined by either a national census or by a language referendum.

2.4 STUDY'S LITERATURE REVIEW

2.4.1 Current sociolinguistic profile of South Africa

South Africa is a multilingual country with eleven constitutionalised languages and, according to Gudmundsdottir (2010:175), its cultural identity is linked to a complex combination of social and ethnic background, history and language. Furthermore, the languages used in South Africa are related to status, class, and political context.

As according to Phaahla (2006:54), in South Africa, English currently occupies the *de jure* status of national and international language of commerce and industry, with Afrikaans following in its wake. With such de facto dominance, the unassailable position of English commands respect and power. This is the case in a country where English is spoken by 8.2% of the population as a home language (Census 2001) and by 9.6% of the population as a first language (Census 2011). The other majority languages are not given the same respect and power. The figure below shows the percentages of people speaking each of the official languages of South Africa as their first home language (language most often spoken in the household) at the time of Census 1996, 2001 and 2011.



	isiZulu	isiXhosa	Afrikaans	English	Sepedi	Setswana	Sesotho	Xitsonga	Siswati	Tshivenda	isiNdebele	Other
2011	22.7	16	13.5	9.6	9.1	8	7.6	4.5	2.6	2.4	2.1	1.6
2001	23.8	17.6	13.3	8.2	9.4	8.2	7.9	4.4	2.7	2.3	1.6	0.5
1996	22.9	17.9	14.5	8.6	9.2	8.2	7.7	4.4	2.5	2.2	1.5	0.6

Figure 2.1: Distribution of the population by first home language: Census 1996, 2001 and 2011

The most frequently spoken first home language in all three census years was isiZulu. This was followed by isiXhosa, while the third most frequently spoken first home language was Afrikaans. The fourth language was English (9.6%), and then Sepedi (9.1%). At 8% was Setswana, then Sesotho at 7.6%. The last four languages were Xitsonga (4.5%), Siswati (2.6%), Tshivenda (2.4%) and the one with the least percentage was isiNdebele, registering at 2.1%.

2.4.2 Language regions

As defined earlier (see p. 15), for the purpose of this study, language region refers to the official language(s) with dominant speakers in a province as determined by either a national census or by a language referendum. The official languages of South Africa are regionally based. This implies that they are concentrated in certain areas (Mabiletja, 2008:20). The languages one will hear most frequently spoken in South Africa depend on where in the country one is. IsiXhosa, for instance, is spoken by more than three quarters at 78.8% of South Africans in the Eastern Cape, and Afrikaans by 10.6%, while 77.8% of people in KwaZulu-Natal speak isiZulu and 13.2% speak English. The predominant languages by province (Census 2011) are as follows:

Table 2.1: Population by first language spoken and province

Language	WC	EC	NC	FS	KZN	NW	GP	MP	LP
Afrikaans	49.7%	10.6%	53.8%	12.7%	1.6%	9.0%	12.4%	7.2%	2.6%
English	20.2%	5.6%	3.4%	2.9%	13.2%	3.5%	13.3%	3.1%	1.5%
isiNdebele	0.3%	0.2%	0.5%	0.4%	1.1%	1.3%	3.2%	10.1%	2.0%
isiXhosa	24.7%	78.8%	5.3%	7.5%	3.4%	5.5%	6.6%	1.2%	0.4%
isiZulu	0.4%	0.5%	0.8%	4.4%	77.8%	2.5%	19.8%	24.1%	1.2%
Sepedi	0.1%	0.2%	0.2%	0.3%	0.2%	2.4%	10.6%	9.3%	52.9%
Sesotho	1.1%	2.5%	1.3%	64.2%	0.8%	5.8%	11.6%	3.5%	1.5%
Setswana	0.4%	0.2%	33.1%	5.2%	0.5%	63.4%	9.1%	1.8%	2.0%
Siswati	0.1%	0.0%	0.1%	0.1%	0.1%	0.3%	1.1%	27.7%	0.5%
Tshivenda	0.1%	0.1%	0.1%	0.1%	0.0%	0.5%	2.3%	0.3%	16.7%
Xitsonga	0.2%	0.0%	0.1%	0.3%	0.1%	3.7%	6.6%	10.4%	17.0%

The information from Census 2011 indicates that in the Free State, Sesotho is spoken by the majority of the province's populace, with more than six in ten people speaking it, and Afrikaans is at 12.7%, while in Gauteng isiZulu is at 19.8%, Afrikaans at 12.4%, Sesotho at 11.6% and English is at 13.3%. In Limpopo, just over half the people speak Sepedi, which has 52.9% users, followed by Xitsonga recording at 17.0%, and Tshivenda at 16.7%.

More than half of the population of the Northern Cape use Afrikaans as a first language with a recording of 53.8%, while Setswana is at 33.1%. In Mpumalanga, Siswati has 27.7% users; isiZulu is at 24.1%, and isiNdebele is 10.1%. North West has 63.4% being Setswana and 9.0% Afrikaans, and lastly, in the Western Cape, Afrikaans is at 49.7%, isiXhosa at 24.7%, and English at 20.2%.

2.4.3 Legislation

A concession is made here that the legislation, acts and/or policies discussed hereunder contain additional information apart from that discussed. The researcher intentionally concentrated and used sections which are solely related to language, which is the central basis for this study.

Not all norms and standards in society are regarded as law as they do not bind the whole community (Peens, 2009:21). It is for this reason that policies are formulated to represent other norms and standards which indicate what society believes is right.

2.4.3.1 Food and the Law

South Africa's food laws and language usage governing laws are updated every now and then to improve public health and equitable usage of official languages based on latest available scientific evidence. According to the Dairy Standard Agency, many regulations relating to the production, marketing and labelling of food are in place to protect the South African consumer. These laws deal with matters such as composition, labelling, hygiene, marketing, safety, quality, import and export. The most important laws include:

- The Foodstuffs, Cosmetics and Disinfection Act (Act No. 54 of 1972), Regulation R.1555;
- The Agricultural Product Standards Act (Act No. 119 of 1990), Regulation R.2581;
- The National Health Act (Act No. 61 of 2003), Regulation R.918.

2.4.3.2 The Constitution of the Republic of South Africa

Bray (quoted by Peens, 2009:25) states that the Constitution is the supreme law of South Africa and contains the most important provisions that control the relationship between the State and those living in it. The Constitution of the Republic of South Africa addresses language-related aspects important to this study. The Constitution provides for the equitable use of all the eleven official languages in the country and the promotion and development of the historically marginalised indigenous languages.

The Constitutional sections that speak to the language rights, promotion and protection are section 6, section 9, section 29 and section 30. These sections recognise the historically diminished use and status of the indigenous languages of South Africa and further guide government on how to use the official languages. These sections protect citizens against unfair discrimination on the grounds of language. The right of education and information in the constituent preferred language is covered and protected under the constitution.

2.4.3.3 Promotion of Access to Information Act, 2000

The Promotion to Access to Information Act (Act No. 2 of 2000) seeks to give effect to the constitutional right of access to any information held by the State and any information that is held by another person, private bodies and information that is required for the exercise or protection of any rights; and to provide for matters connected therewith subject to justifiable means.

The Gauteng Language Policy Framework is of the view that such access might not only refer to physically obtaining the information but must, as far as possible, be in a language of choice of the requester.

2.4.3.4 The Use of Official Languages Act, 2012

The Use of Official Languages Act (Act No. 12 of 2012) seeks to promote equitable use of official languages of South Africa, taking into consideration section 6(2) of the Constitution of the Republic of South Africa (Act No. 108 of 1996), which recognises the diminished historic use of indigenous languages. The Act seeks to do so by taking practical and positive measures to regulate and monitor the use of official languages, promoting parity of esteem and equitable treatment of official languages, facilitating equitable access to services and information and promoting good language management by national departments, national public entities and national public enterprises to meet the needs of the public.

2.4.3.5 Language policy

According to Peens (2009:24), the South African Language Policy is a structured outline designed to promote the diversity of languages in South Africa and encourage respect towards language rights. He further stated that the strategic goals of the Language Policy include:

- Ensuring that all South Africans have the freedom to exercise their language rights by using the official language of their choice;
- Developing and promoting all the official languages of South Africa, including sign language;
- Promoting national unity, multilingual and multiculturalism (Language Policy and Plan for South Africa (Final Draft), 13 November 2002).

2.4.3.6 The Consumer Protection Act, 2008

In attempt to redress some of the burdens of the past and, in trying to improve the living conditions of South African consumers, the former President, Motlanthe, on 24 April 2009 signed into law the consumer Protection Act (Act No. 68 of 2008). The Consumer Protection Act came into effect on 31 March 2011. Part D of the Act under the heading Right to disclosure and information makes the point that consumers have the right to information in plain and understandable language. Section 22(1)(b) of the Act, states that:

> *The producer of a notice, document or visual representation that is required, in terms of this Act or any other law, to be produced, provided or displayed to a consumer must produce, provide, or display that notice, document or visual representation in plain language, if no form has been prescribed for that notice, document or visual representation*.

It then becomes important to briefly define the concept *plain language* that the Act prescribes as a must for producers when dealing with consumers.

2.4.3.6.1 Plain language

Plain Language is now a world-wide phenomenon. In the European Union (EU) the translators, primarily from the United Kingdom, have started a campaign for plain language in EU documents. This will probably lead the way into the 21st century (Sundin, 1999:02). The Administrative Manual (2009:02) defines plain language as a writing style that simplifies and organises use of language to help ensure that written communications are clear and understandable to the reader. Most advocates of plain language seem to agree on it being "the writing and setting out of essential information in a way that gives a co-operative, motivated person a good chance of understanding the document at first reading, and in the same sense that the writer meant it to be understood" (Sundin, 1999:02).

Plain language does differ from ordinary good writing. Lauchman (2009:07) is of the view that all good writing shares the same characteristics, but Plain Language differs in what it emphasises, and the heart of the matter is that it emphasises the reader, not the writer nor the message. It stresses these aspects of writing:

- Making the important information easy to find, understand and use;
- Being straightforward in the order of words;
- Using formatting and design elements to indicate how ideas are organised and to make the document attractive.

Critics of Plain Language acknowledge that, ideally, it could be a worthy goal, but often claim that such writing is mechanical and lifeless, a relentless procession of dull, declarative writing (Frost, 2005:46). According to Kimble (1995:51), the old criticism is, in essence, "that we either should not or cannot write in plain language: should not, because it debases the language; and cannot, because of the overriding demands of precision".

It is worth noting that not every document is a candidate for a full plain language 'treatment', but certain elements of the approach are useful in everything we write (Lauchman, 2009:08). Lastly, Frost (2005:47) concluded that one can use plain language without being dull. One's writing can be direct and concise while still keeping the reader's attention and interest if, among other things, one uses basic transition techniques. Then, even if one cannot always make one's writing sing, one can at least make it hum along.

2.5 HEALTH AND INCOME (Health economics)

Stronks, Van den Mheen and Mackenback (1998:548) state that empirical studies in many countries show that people who are worst off as far as their socio-economic position is concerned, are also worst off when it comes to health. The same sentiment is expressed by Medrano, Rodriguez and Villa (2008:612), observing that low-income households have less education and are probably less healthy than wealthier ones. Deaton (2006:01) found that the inhabitants of poor countries not only have lower real incomes, but they are also more often sick, and they live shorter lives.

Deaton's (2006:01) finding is contradicted by Kawachi and Kennedy (1999:215), observe that, despite being the richest nation in the world, and despite nearly a decade of sustained economic growth, the United States lags behind other developed countries on many health indicators. For instance, according to the 1996 United Nations Development Report, the United States was 20th in the world ranking of life expectancy, lagging behind poorer countries such as Costa Rica, Greece, and Spain.

Though according to Kawachi and Kennedy (1999:215), the relationship between income and health is well established; where the higher an individual's income, the better his or her health. The evidence above indicates that income alone cannot be the only determinant of health. This suggests that broader economic and social forces may determine health patterns of individuals. According to Benzeval, Taylor and Judge (2000:377), in order to explore some of the forces, one needs to look to an individual's circumstances in childhood as well as their adult experiences.

Næss (2005:03) voiced three principal theories via which aspects of the childhood socio-economic environment may affect later health risk:

- First, parental socio-economic position may influence adult socio-economic position through access to social and economic resources;
- Second, the social environment children experience may put them at risk of exposure to known and unknown factors that are thought to have causal effects on later disease risk;
- Third, childhood socio-economic environment may influence health related behaviour that may have long-lasting effects on health.

Næss' (2005:03) three principal theories are illustrated and supported by Benzeval *et al.* (2000:378) in Figure 2.2 below. They present *a life-course perspective* of income and health, and verifiably confirm Næss' principal theories.

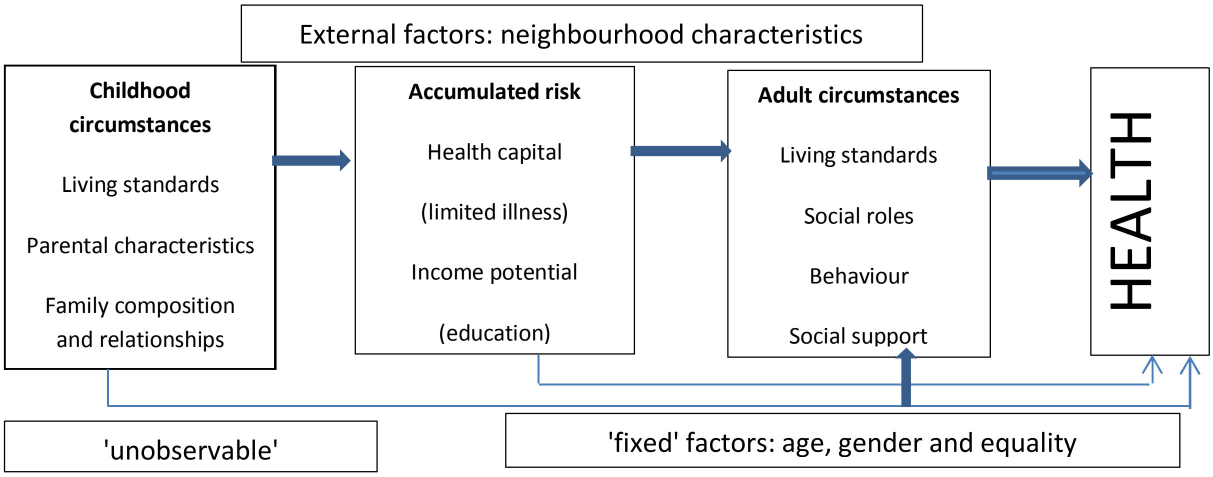


Figure 2.2: A life-course perspective: Income and health

Benzeval *et al.* (2000:378) point out that from Figure 2.2, there are two key dimensions that are defined as *income potential* and *health capital*. Income potential is defined as the accumulation of abilities, skills and educational experiences in childhood that are important determinants of adult employability and income capacity. They define health capital as the accumulation of resources, both physical and psychological, inherited and acquired during the early stages of life which determine current health and future health potential.

Benzeval *et al.* (2000:378) point out that there is an accumulated risk profile with which individuals enter into adulthood and into various domains of their lives that will affect their future socio-economic and health circumstances. Næss (2005:03) states that some of this continuity between the childhood and adulthood socio-economic position may be mediated by education by stating that in Norway, studies have shown that family background has a strong effect on achieved length of education and future income and occupation. Benzeval *et al.* (2000:378) support that point by also stating that education is seen as the key mediator in the association of health and income. Medrano *et al.* (2008:612) postulate that it has been previously established that investments in children's health and education could help by enhancing an individual's future income through future productivity.
According to Medrano *et al.* (2008:612), many of the Millennium Development Goals (MDGs) are related to the improvement of children's education and health. MDGs are eight goals that United Nations Member States have agreed to try to achieve by the year 2015. The declaration commits world leaders to combat

poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. It thus became important that the study looks at the impact of the concept education and health and its role in the promotion of healthy living.

2.6 EDUCATION AND HEALTH

This section looks at the concept of education and health and their combined influence on the health status of consumers, and the state and quality of the concept in the South African context. It is important to start the section by looking at the two terms independently (education and health) before discussing the relation between them.

2.6.1 Education

Education is a very general term used to refer in very different ways to the experience and/or results of learning undertaken primarily in institutional settings such as schools and colleges (Feinstein, Sabater, Anderson, Sorhaindo & Hammond, 2006:215).

Education remains an important factor in the development of a country. Through education, individuals are prepared for future engagement in the labour market, which directly affects their quality of life as well as the economy of the country (Community Survey, 2007:28).

Gove (2009:03) stated that education has an emancipatory, liberating value. He regarded education as the means by which individuals can gain access to all other goods we value – cultural, social and economic – on their terms. He further continued to state that education allows individuals to become authors of their own life story. Education develops one's ability to gather and interpret information and to solve problems on many levels. It also increases one's potential to control events and outcomes in life (Feinstein *et al.,* 2006:07).

2.6.2 Health

The World Health Organisation (WHO) (quoted by Ndlovu, 2009:13), defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". According to Ndlovu (2009:13), this definition implies that the WHO views health holistically and incorporates social and economic well-being.

Ndlovu (2009:13) points out that in the Western health systems; health is defined as the absence of disease, which entails that the human body is separated from its social context in the provision and maintenance of health. Callahan (1973:87) defines health as the state of physical well-being. He continues to clarify that the state need not be "complete", need not encompass "mental" and/or "social well-being".

As indicated (see p.14), the working definition of *health* for the current study is that of Ndlovu (2009:13), who defines health as "access to and control over basic material and nonmaterial resources that sustain and promote life at a high level of satisfaction".

2.6.3 Education and health relations

A large and persistent association between education and health has been well-documented in many countries and time periods and for a wide variety of health measures (Ford, 2007:02). According to Ivančič, Mirčeva and Vrečer (2008:05), rights to education and health are basic rights, granted by the Universal Declaration of Human Rights from 1948. Unfortunately it is a real contemporary human condition that all people do not have access to education and health on equal footing.

Education is a key element of sustainable development and is perhaps one of the most important underlying determinants of health at both individual and community levels. Education reduces poverty through increased employment, and provides skills for attaining better health. The broader societal benefits of investing in education receive less attention, but are fundamental to the well-being of individuals and communities (Baums & Payea, 2005:19). Ford (2007:02) posits there is a direct relationship between education and health; as better educated individuals have more positive health outcomes.

According to Medrano *et al.* (2008:615), individuals from households where parents, especially mothers, have an education background, are more likely to have better health outcomes in the future. They are of the view that the acceptance is that parents' (mothers') education can affect the child's health through the following five channels:

- It increases economic resources of the family by increasing own earnings.
- It increases efficiency in the usage of available health facilities.
- It can affect household preferences.
- It improves allocation of resources due to better knowledge and information.
- It can indicate wealth status and assortative mating.

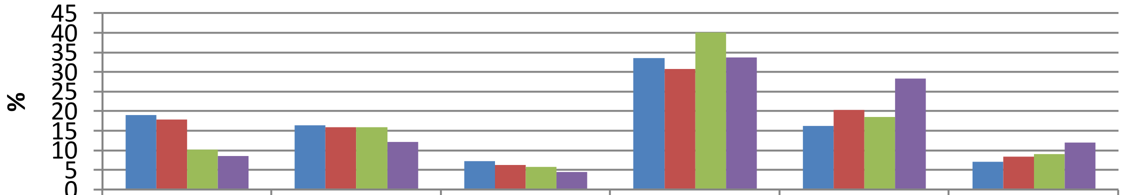
Ford (2007:03) suggests three broad explanations for the association between health and education, although he recognised that these do not represent an exhaustive list:

- The first is that poor health leads to lower levels of schooling, since poor health in childhood is linked to poor health in adulthood.
- The second potential explanation is that additional factors, such as family background or individual differences, both increase schooling and improve health.
- The third potential explanation for the link between education and health is that increased education directly improves health. The tabled evidence above leads the researcher to interrogate the concept of education in South Africa.

2.7 EDUCATION IN SOUTH AFRICA

Every nation strives towards the provision of quality education for its citizens. This is in realisation of the fact that education is indeed necessary to engineer and consolidate any nation's development process (Ayodele & Akindutire, 2009:43). Within the education system in South Africa, learners are taught in their mother tongue in the first three grades of school (grades one to three). After grade four, however, learners speaking African home languages participate in English or possibly Afrikaans classes for the rest of their school attendance. Neither adequate support materials nor additional support are provided in the transition period (Gudmundsdottir, 2010:175).

The recent available data on the education in South Africa is recorded in the 2011 Census, and the research compares the recent Census with that of 1996 and 2001 together with the main findings of the Community Survey (CS) of 2007. The comparison is presented in Figure 2.3 below.



	No schooling	Some schooling	Completed Primary	Some Secondary	Grade 12/Std 10	Higher
1996	19.1	16.5	7.4	33.6	16.3	7.1
2001	17.9	16	6.4	30.8	20.4	8.4
2007	10.3	16	5.9	40.1	18.6	9.1
2011	8.6	12.2	4.6	33.8	28.4	12.1

Figure 2.3: Highest level of education amongst the population aged 20 years and above
Sourced from Statistic South Africa's Community Survey: 2007 and Census Brief: 2011

Figure 2.3 shows that at the time of both Censuses, that of 1996 and 2001, just above three in ten, as compared to four in ten as depicted by the Community Survey (CS) 2007 of those aged 20 years and older, had started, but not completed, secondary education. In 2011, the number dropped to 8.6%.

Over the period 1996 to 2001, there was a drop in percentage from 33.9% to 30.8%. Between 2001 and 2007 however, there has been a notable growth in some secondary schooling among persons aged 20 years and older (30.8% in 2001 to 40.1% in 2007). In 2011, the number decreased to 33.8%. There is a significant decrease in the percentage of the population aged 20 years and older with no schooling since 1996. In 1996, those who had no schooling accounted for 19.1% and steadily decreased to 17.9% in 2001 and to 10.3% in 2007; the number continued to decrease to an 8.6% count in 2011 . In 2007, 9.1% of persons aged 20 years and above had completed higher education, against 8.4% in 2001 and 7.1% in 1996. The number of those aged 20 years and older who completed higher education raised to 12.1% in the 2011 Census.

2.7.1 Drop-out rate in South African schools

The Department of Basic Education (2011:02) defines drop-out rate as the proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year. Schooling circumstances, together with personal and family level factors such as ill health, malnutrition and poverty, jeopardise meaningful access to education for many children. As a result, many children are registered in schools but fail to attend, participate but fail to learn, are enrolled for several years but fail to progress and drop out from school (Sabates, Akyeampong, Westbrook & Hunt, 2010:02).

Some of the unfortunate consequences in terms of low scholastic attainment are high drop-out and repetition/failure rates (Gudmundsdottir, 2010:176). The overall drop-out rate from the school system (from Grades 1 to 11) was 4%. It can be seen in Figure 2.4 that the drop-out rate before Grade 9 was extremely low. It was around 1% in Grades 1 and 3 and less than 1% in Grades 2 and 4. From Grades 5 to 8, the drop-out rate was minimal, ranging between 2% and 4%. The low drop-out rate in the lower grades was consistent with the high enrolment rates in these grades.

Sabates *et al.* (2010: 02) support the previous point, stating that children are starting primary school in greater numbers than ever before, but drop-out rates are significant and lead to low level of primary school completion in many countries.

From Grade 9 upwards, however, the drop-out rate increases, reaching almost 12% in both Grades 10 and 11. In total, 10% of learners who had been enrolled in Grades 9 to 11, dropped out of school between 2007 and 2008.

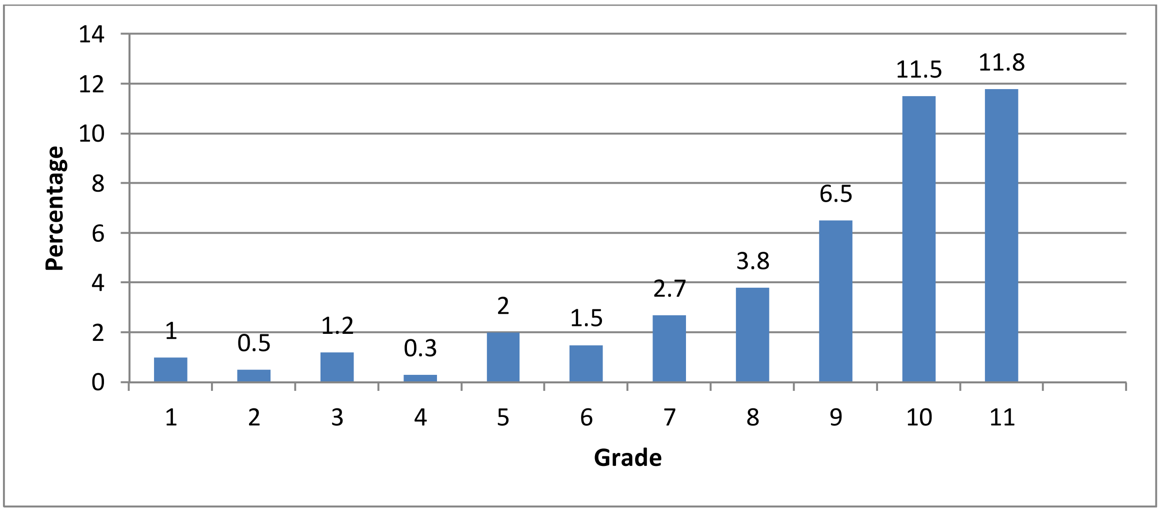


Figure 2.4: Drop-out rate: 2007/2008

Source: National Income Dynamics Study Survey database, calculated by the DBE

As a result of substantial drop-out rates and non-completion in schooling, many children are leaving school without acquiring the most basic skills. Sabates *et al.* (2010:18) suggest that flexible schooling hours and systems, together with multi-grade and multi-age teaching approaches and appropriate language of instruction, can help reduce drop-out rates.

2.7.2 Language and education

According to Botes and Mji (2010:123), language and education are interrelated because all teaching is performed through the medium of language. Language is considered to be both the precondition for thought and a bearer of thought. In the South African context, the interrelation is extended owing to the linguistic diversity, and poses complex issues.

Van Rooyen and Jordaan (2009:271) postulate that the ability to use language for learning can be difficult for individuals who are educated in a second language. The majority of learners in South Africa are bi- or multilingual, and attend school in a language that is not their first language, and are taught by teachers whose language of learning is their second or third language.

The Pan South African Language Board (PanSALB) (2000:187) found that "proficiency in English is less widespread than expected and that more than 40% of the people in South Africa often do not understand what is being communicated in English". This point raises the issue of how learners and teachers are impacted by the language issue in education, which ultimately contributes to the understanding and usage of the language at a later stage of life.

2.7.2.1 Learners

Two small-scale research studies (Probyn, 1995 & 2001) confirmed anecdotal evidence suggesting that learners tend to use their home language with their classmates and in group discussions, and to a greater extent, with the teachers (Probyn, 2005:1857).

Owing to learners' struggles to understand, teachers employ code-switching methods to make lessons understandable to learners, by switching between the language of learning and the learner's familiar language/home language (Gudmundsdottir, 2010:184). Probyn [1] (quoted by Gudmundsdottir, 2010:184) suggests the following survival strategies:

Teachers:

- switched to isiXhosa if they saw the learners were not understanding a new concept or word;
- encouraged learners to use isiXhosa if they had problems answering in English;
- taught new concepts in isiXhosa and then transferred those into English;
- switched to isiXhosa when using examples from learners' everyday experience.

Gudmundsdottir (2010:184) made the observation that "it was noticeable that the learners who speak English as their second or third language have difficulties understanding instructions when they receive them only in English".

The supporting strategies above is evidence that English can be a barrier to communication, and the way to make people understand and use the information, is to provide that information in a language that they understand and use, thereby

[1] It should be noted that Probyn's study was carried out in the Eastern Cape where the majority of the population speak isiXhosa and the supporting strategies are presented as those of that population, but for the current study's purpose, those strategies will be taken to apply for other indigenous languages where the support may be needed, though the language may not be isiXhosa.

giving potency to the aim and objective of the current research study that multilingual labelling can improve the health status of South Africans by offering information in an understandable language; that of the citizens.

2.7.2.2 Teachers

Ayodele and Akindutire (2009:43) state that the role of the teacher in ensuring the success of any education system cannot be overemphasised.

The majority of teachers in South Africa are not first-language speakers of the language of learning and teaching, and that poses challenges to both teacher and learner. The other argument by Ngidi (2007:05) is that, in many schools, some educators use their native language even when they teach content subjects, however, at the end learners are expected to answer tests and examinations in English, and also that the teacher's mother tongue may not be that of the learners, further disadvantaging the pupil.

Ayodele and Oyewole (2012:48) stated that "teachers are the main determinant of quality in education. If they are apathetic, uncommitted, uninspired, lazy, unmotivated, immoral, antisocial, the whole nation is doomed. If they are ignorant in their disciplines, and impart wrong information, they are not only useless but dangerous. The kind of teacher trained and posted to the schools may well determine what the next generation will be" (Ayodele & Akindutire, 2009:44).

2.8 PURPOSE OF NUTRITION INFORMATION LABELLING

During the last two decades, food product labelling has become a popular policy tool, particularly with respect to the provision of nutrition and health related information (Maghoub, Lesoli & Gobotswang, 2007:02). There is a lot to know about the food people eat. Nutrition information labelling is often proposed with the aim of achieving a social goal such as improving human health and safety, mitigating environmental hazards, averting international trade disputes, or supporting domestic agricultural and food manufacturing industries (Golan, Kuchler & Mitchell, 2001:117).

Accurate, easy-to-read, and scientifically valid nutrition and health information on nutrition information labels is an essential component of a comprehensive public health strategy to help consumers improve their diets and reduce their risk of diet-related diseases. Kasapila and Shawa (2011:5173) are of the view that nutrition information labelling also allows consumers to make informed choices based on safety, cultural, ethical, religious, and dietary concerns.

Nutrition labels are intended to help consumers choose more healthful food. Providing nutrition information increases incentives for producers to create more healthful foods and aids consumers in choosing a healthier diet, which leads to lower costs from diet-related illnesses (Golan *et al.,* 2001:148). Nutrition information labels contain a variety of information about the nutritional value of the food item, information which, when accessible, can help people who are trying to restrict their intake of fat, sodium, sugar or other ingredients, or the individuals who are trying to get enough of the healthy nutrients such as proteins, calcium or vitamins.

With the above in mind, improved nutrition information labelling could provide consumers with easy-to-read and understandable nutrition labels and ingredient information that they can use to reduce their risk of getting lethal chronic illnesses.

2.9 LINGUISTIC ACCESSIBILITY OF NUTRITION INFORMATION LABELLING

According to Phaahla (2006:06), a complaint lodged by PanSALB is that it has become evident from its interaction with organisations involved in developing language policies that a policy of English monolingualism is being followed in practice. This is occurring despite preambles in policy documents advocating a commitment to multilingualism.

It is the view of Lobstein, Landon and Lincoln (2007:35) that clear and simple nutrition labelling, in a consumer's language, should be a consumer's right, not an optional extra. It is the consumer's right to have easy-to-understand information about what has been added to foods consumed and the impact this may have on their own and sometimes their family's health.

Literature shows that language barriers have a demonstrable negative impact on access, quality and sometimes on cost of the information that provide health messages to consumers (Brach, Fraser & Paez, 2005:424). Tiara (1999:323) is of the view that to improve the health of non-English speaking consumers, there is a need to remove the language barriers that prevent consumers' access to information in order to enhance communication of food messages intended for them.

The researcher contends that, presently, in South Africa, English presents limitations and acts as a barrier for consumers to use the nutrition information, and results in misunderstanding and, to some extent, non-usage of labels, which makes nutrition information labels inaccessible to the majority of South Africans.

An estimated 50.9 million people in South Africa (Census 2011), which is 90.4% of the population, speak a language other than English at home. Compared with proficient English speakers, people with limited English proficiency or no proficiency at all, are less likely to receive needed information when purchasing food products (Brach *et al.,* 2005:425).

Language barriers and inaccessibility are associated with poor quality of health owing to the non-existence of health information in a language known and sometimes preferred by consumers (Brach *et al*., 2005:425). This statement allows the study to make an assertion that improving accessibility of nutrition labels is both a matter of health and consumer safety as the ability to read and understand labels, inclusive of information and instructions, is critical for the consumers' overall health.

Overcoming language barriers to health information (nutrition information) on food packages/products is critical to the well-being of millions of non-English first-language speakers and non-English speakers. For such consumers, the introduction of multilingual labelling could be the solution, which requires the employ of translation services to describe potentially complex English texts and terms in various indigenous languages.

2.10 MULTILINGUALISM

As a starting point, it is important to define the concept *multilingualism*. Corson (quoted by Mabiletja, 2008:09) defines multilingualism as the recognition and the use of more than two languages in every sector of the community. Messele and Michael (2009:04) indicate that a multilingual person, in the broadest definition, is one who can communicate in more than two languages, be it actively (through speaking and writing) or passively (through listening and reading).

A clear distinction can be made between individual and societal multilingualism. Mabiletja (2008:09-10) states that at the individual level, multilingualism refers to the speaker's competence to use more than two languages. On the other hand, societal multilingualism occurs where three of more languages are present in a community. Messele and Michael (2009:04) term it differently though in support of Mabiletja's point: they indicate that multilingualism is applicable both at an individual level and at a state level. For an individual, a multilingual person is one who has a native-like competence in more than two languages. For a state, it refers to the existence of more than two different/separate languages in a nation state.

In addition to this, Sridhar (1996:47) also distinguishes between individual and societal multilingualism by stating that in the case of individual multilingualism, the focus is on how one acquires and accesses these languages for using, while in societal multilingualism, the focus is on institutional dimensions such as the use of languages in a given society (Mabiletja, 2008:10). Prah (2007:18-19) makes the suggestion that, in South Africa, the point that must be made is that multilingualism, not bilingualism or unilingualism, needs to be cultivated if all voices in South African languages are to be heard.

2.11 MULTILINGUAL LABELLING

Multilingual labels for food have recently become a critical issue as nutrition information labels provide valuable consumer information deemed necessary (Arai, 2002:02). Language should not be a barrier to addressing the health needs of the South African consumer. A multilingual nutrition label can be better equipped to communicate health messages, to disseminate health information and to allow sharing and usage of health information in an equitable manner.

Thiong'o, a Kenyan writer and English specialist (quoted by Phillipson, 1996:164) stated that 90% of the population in Africa today speaks only African languages; anything in English is reaching only 1% of the population. The majority of South Africans speak an indigenous African language as their home language; just over 80% of the population is African, of whom less than 1% speak English at home (Casele & Posel, 2010:01).

Demetrakakes (2003:38) points out that "… speaking the consumer's language is a primary principle of effective merchandising". The study emphasises that consumers have a right to information on the qualities and characteristics of food products they purchase. Ritter (2007:09) states that "… as everyone should know, it does not matter how loud you shout – if you're speaking the wrong language, you simply won't be heard".

Therefore, the study asserts that nutrition labelling on food products must be availed in a language used and understood by the consumers. This point is supported by Demetrakakes (2003:38) and Ritter (2007:09), with the former stating that international firms cannot compete globally in only one language and the latter emphasizing that, in many cases, packaging has to follow the principle of "speaking the consumer's language" quite literally.

2.11.1 Advantages of multilingual labelling

Multilingual labels can enhance economic efficiency by helping consumers to target expenditure toward products they most want (Golan *et al.,* 2001:127). If properly designed and executed, multilingual labelling broadens product appeal and can open up big new markets.

Multilingual labels allow producers to communicate effectively with the targeted and relevant consumers. The point is supported by Ritter (2007:09) when stating that "articulating one's message in the local language(s) with relevance and appropriate nuance is the only way to ensure success and must be at the heart of any global marketing strategy".

The labels in multilingual formats can help advertise the product and increase product purchase without costing the producers a loss of profit. As observed by Čuk (2009:17), nutrition information labels in multiple languages may be cheaper to reproduce.

2.11.2 Disadvantages of multilingual labelling

Arai (2002:10) reckons the disadvantages with multilingual labels include concerns of manufacturing costs, translation issues and label space limitations. Multilingual labels consume more label space, leaving less space for product advertising and promotion. Despite the concern, other products voluntarily use multilingual labels as a method for appealing to the non-English speaking population; therefore, these products can potentially increase their consumer appeal with the usage of multilingual labels (Arai, 2002:10). Such concerns result in manufacturing industries and policy makers deterring from introducing and using multilingual labels.

According to Čuk (2009:17), in the European Union, one specific problem regarding multilingual nutrition information labels is where a nutrition information label carries information in 23 languages of the EU and the abundance of information for the consumer worsens speed and accuracy of reading, comprehension and therefore effectiveness. The current study makes the point that the 23 languages on the label is to the detriment of the customer; thus, in the South African context, the call is for a multilingual label with fewer languages in order to aid consumers.

Nevertheless, according to Arai (2002:10), under a theory of language rights, a concept currently prevalent in the academic discourse, economic concerns do not justify language discrimination. Moreover, it is posited by Arai (2002:10) that, until the manufactures assume the economic costs of linguistic accommodation, non-English speakers are bearing these costs for the economy

2.12 NEED FOR TRANSLATION SERVICES

Multilingual settings are becoming the norm in a global society and within the borders of South Africa, as with the provision of the Constitution and with more and more people coming from different social and cultural backgrounds are utilising their rights and preference to communicate in their own preferred languages.

Since the dawn of democracy in South Africa, there has been a significant increase in the demand for translations of hegemonic languages into the previously marginalised languages (Moropa, 2007:183). There are numerous reasons that are generally stated for the non-usage and sometimes non-translation of indigenous languages in higher functional domains. Two of these reasons are (Phaahla, 2006:06):

- Indigenous African languages do not have the status (prestige) that they require to be used for higher functions;
- They lack the necessary technical terms in most domains.

Phaahla's reasons are supported by Gauton, Taljard and De Schryver (2003:81), stating that the single biggest problem that translators who translate from a language such as English into the African languages have to contend with is the lack of terminology in the African languages in the majority of specialist subject fields.

This part of the study addresses the services that are needed to allow for linguistic accessibility of nutrition information for consumers. It looks at the need for translation services for the production of multilingual nutrition information on food products which could act as the solution to issues of language as a barrier even with the use of colour coding.

For translation to succeed; there is a need to have technical and scientific terms in the domain of concern; as a result, the researcher will start by looking at the role of terminology development before discussing the application of translation services.

2.12.1 The role of terminology in translation

There is no repudiating that there is a uniform, hand-in-glove relation in the works of terminology and translation. According to Gauton *et al.* (2003:81), the relevance of terminology theory and practice for translators becomes clear when the translator is faced with a situation where he/she can no longer rely on existing knowledge and/or dictionaries, and has to conduct research beyond the dictionary, owing to the lack of specialised terminology in the target language.

"The word 'terminology' is often associated with translation for several reasons. Firstly, translators are major users of terminology, in the sense of the technical or special terms or expressions used in a given discipline, profession or activity. Secondly, terminology, as a method of collecting, grouping together and structuring sets of terms peculiar to given subject areas, was developed and practiced largely by translators" (Roberts, 1985:343).

The main variables affecting translation are the quality of the written text, availability of relevant terminology, expectations of the targeted reader of the translated text and the expertise of the translator. According to Moropa (2007:183), with a lot of translation being done into African languages, the concern faced is that the translated texts, due to lack of standardised terminology, are not of uniformly "acceptable" standards.

The development of terminology helps translators to render accurate, consistent and relevant translations by providing standardised term equivalents in the respective target languages. Ritter (2007:18) is of the view that terminology streamlines development in the language field by reducing time spent on research for terms and by allowing translators the opportunity to use automated tools to insert and verify terminology entries for translations.

According to Alberts (2008:18), in language, standardised terminology contributes immensely to the quality of translations and other language-specific services, including interpreting and editing, and leads to exact communication. Misinterpretations or misunderstandings are avoided. The point is supported by

Ritter (2007:18), states that terminology enables translators to use the same terms consistently within and across the communication types they may be involved.

According to Ritter (2007:18), terminology is the most efficient solution for ensuring that translators speak consistently with one voice. Therefore, allowing for ease and accurate translation of nutrition information to the target users language and on the same vein, consistency in correct terminology usage guarantees provision of quality, customer satisfaction and ultimately ensures profit for the organisation involved.

2.12.2 Translation's role in multilingual labelling

Providing a working definition for translation seems simple at a first glance. However, theorists and linguists differ on the definition of the concept. Sokolovsky (2010:285) and García-Landa (2006:435) allude to the fact that it is difficult and impossible to describe a uniform definition of translation because translation is an open game and its taxonomic traits have not been fully described yet and that is proved by dozens of translation definitions. Sokolovsky (2010:288) advances that linguistically, translation can be defined as a type of language mediation, socially serving to approximate a mediated bilingual communication to a common monolingual communication.

It is imperative to overcome language barriers in health message provision, and translating nutrition information labels into a consumer's native language is the best way to overcome some linguistic barriers and to ensure safety and informed choice when the consumer purchases food products.

Jakobson (2000:233) distinguishes three ways of interpreting a verbal sign: it may be translated into other signs of the same language, into another language, or into another non-verbal system of symbols. He further posits that these three kinds of translation are to be differently labelled:

(i) Intralingual translation or rewording is an interpretation of verbal signs by means of other signs of the same language.
(ii) Interlingual translation or translation proper is an interpretation of verbal signs by means of some other language.

(iii) Intersemiotic translation or transmutation is an interpretation of verbal signs by means of signs of a non-verbal sign system.

Language barriers have a major adverse consequence in consumers' general health, owing to the choices they make when purchasing food products where information is primarily provided in English. Translation can be used as a tool to provide adequate, understandable and usable information to consumers with limited or no English proficiency through the use of multilingual labels on food products.

2.13 COLOUR CODING ON NUTRITION INFORMATION LABELS

With the growing concern about the rising prevalence of obesity and other diet-related diseases, there is now an urgent need to ensure that consumers are fully informed about the nature of the foods they are buying and can make rapid assessments of the nutrition value of products they purchase (Lobstein *et al.,* 2007:06) but Pascuet, Dawson and Vaillancourt (2008:01) advance that individuals with language barriers face greater difficulties when attempting to interpret labels and instructions on food products that are meant to inform consumers. The problems associated with consumer comprehension of labels and food instructions are difficult in most countries, even in developed countries with higher levels of literacy, and are more compounded where there are differences in language within the communities (Pascuet *et al.,* 2008:01).

In an effort to help consumers make healthier food choices, the Food Standards Agency (2007:01) developed a new labelling system on food products. The system tells the consumer the level of sugars, fat, saturated fat and salt found in particular food products. The Food Standards Agency uses colour coding, also called traffic-light signpost labelling, to differentiate and indicate the levels of the four key nutrients mentioned (see Figure 2.5); the use of red to indicate that the product has a high volume of a particular nutrient, amber to indicate medium concentration, and green to inform the consumer that the food product contains a low amount of a nutrient.

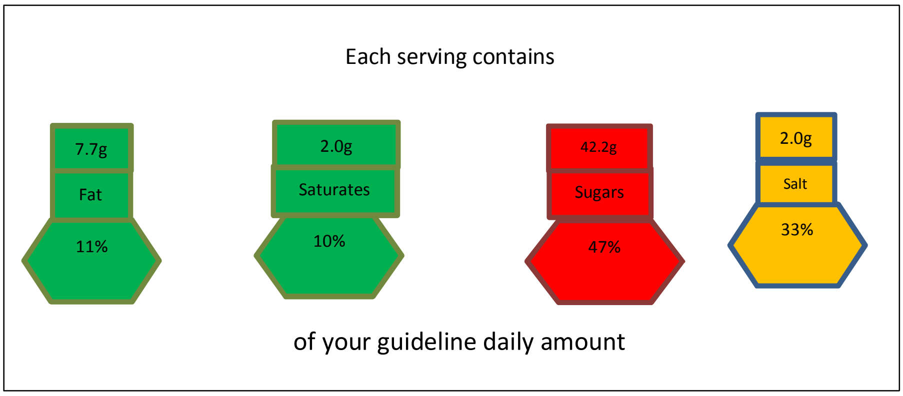


Figure 2.5: Traffic-light nutrition labelling, showing percentages (Food Standards Agency, 2007:11)

Colour coding are descriptive symbols that help convey information and promote access regarding nutrition information, and can be incorporated to emphasise key nutrition information. The aim of the colour coding system is to increase clarity for consumers about the comparative benefits of different foods (Lobstein *et al.*, 2007:06). They help consumers make healthier food choices by choosing more products with green or amber light than red (see Figure: 2.6).

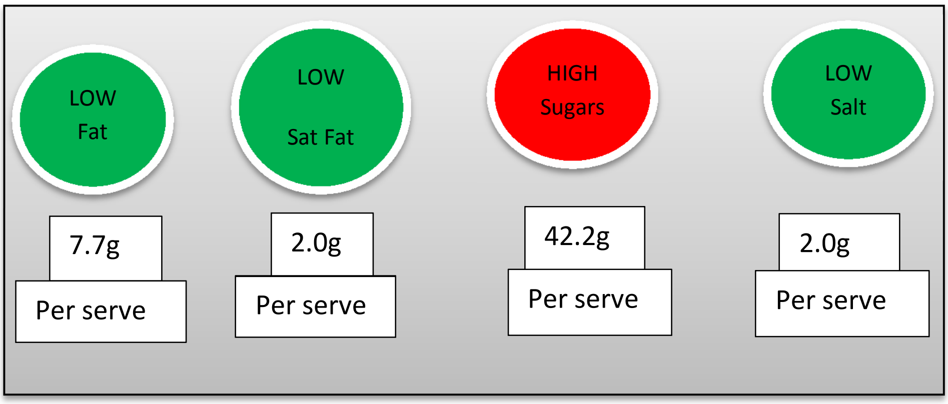


Figure 2.6: Example of traffic-light nutrition labelling (Food Standards Agency, 2007:

The use of colour coding or pictograms helps to reduce the amount of reading required and motivates consumers to follow instructions and read labels, therefore leading to a positive effect on the consumers' ability to use nutrition information. In addition, they can be used to help bridge communication barriers due to varying levels of health literacy, language differences, and cultural variations (Pascuet *et al.,* 2008:02; Arai, 2002:30).

According to Arai (2002:30), symbols, pictograms or colour coding are limited in what they can express as the complex information on nutrition information labels would be difficult to communicate by purely using symbols, pictograms or colour coding. A multilingual colour coding system is needed in South Africa because, from the examples of the traffic-light labelling above, English is used to indicate the type of nutrient represented by a specific colour and the researcher, as noted in this chapter (see p. 32), is of the view that English can act as a barrier to consumers in using labels and knowing how to judge the colour representation on products.

2.14 LANGUAGE: MUTUAL INTELLIGIBILITY IN SOUTH AFRICA

According to Prah (2007:31), way back in the 1940s and 1950s, Dr Jacob Nhlapo, who was then the editor of the Bantu World Newspaper, was obsessed with the idea of developing only two African languages in South Africa. He argued on the one hand that the relationship between the Nguni languages was so close that they could be merged to form one language, and, on the other hand, that the Sotho group could form another block.

By the same token, according to Kabwe-Segatti, Pejout and Guillaume (2006:147), as a whole, South African indigenous languages belong to two main subgroups: the Nguni languages and the Sotho languages; languages within these subgroups are to a large degree mutually intelligible.

The same premise is set by Prah (2007:21), which states that of the nine African languages currently acknowledged by law, all except two can be grouped under Nguni or Sesotho-Setswana: Tshivenda and Xitsonga stand on their own. A significant proportion of black South-Africans have, to varying degrees, a command of at least two African languages, if not three or more, and are able to shift from one variety to another according to the situation, the topic, the other actors, etc. (Kabwe-Segatti *et al.,* 2006:148).

According to Kabwe-Segatti *et al.* (2006:149), the main consequence of these combined facts may be that there is a wide command of a Nguni and Sotho variety across the African population; almost half of South-Africans indicate a Nguni language as their home language, and a quarter, one from the Sotho subgroup. If we add to these the high rate of multilingualism, we arrive at a figure of over 60% of the population with an understanding of a Nguni variety; over 35% for a Sotho variety.

Madiba (2004:29) noted that, for the practical implementation of the National Language Policy, Cabinet has approved the South African Languages Bill to be enacted. This Bill provided a more practical way of implementing the eleven official languages by providing a six-language formula according to which each government department should use at least six languages in written communication. These languages are English, Afrikaans, Tshivenda, Xitsonga and one Nguni (isiZulu, isiXhosa, isiNdebele, Siswati) and one Sotho (Sesotho, Sepedi, Setswana) language. The Nguni and Sotho languages will be used on a rotational basis.

Examples to support the above suggestions can be seen from the national broadcaster, the South African Broadcasting Corporation (SABC), and the pay channel broadcaster, Supersport on Superdiski. From the researcher's observation, the SABC, when broadcasting the Nguni and Sotho current news on television (TV), they alternate the news readers according to the language groupings; also the reporting journalists in one news bulletin are grouped accordingly.

The Nguni current news slots are divided into two during the week: the early afternoon news alternates between isiNdebele and Siswati, with the evening bulletin shared by isiXhosa and isiZulu readers. The Sotho grouping is shared by Sesotho, Setswana and Sepedi news readers during the week.

The point of interest for the researcher is that, when reporting is done in a specific Nguni or Sotho bulletin, the reporter reports in a language based on the grouping mentioned – isiZulu, isiXhosa, isiNdebele or Siswati during the Nguni news bulletin slot. The same is experienced during the Sotho bulletin, where a reporter will use Sesotho, Setswana or Sepedi regardless of the news reader's language.

Supersport TV on the other hand, during the Premier Soccer League matches, provides three language commentary options during the live broadcast matches. The language options are English, Sesotho and isiZulu. On the same vein, SABC Sport during their football commentary uses a pairing of English and either isiXhosa, isiZulu, Setswana or Sesotho. These observed examples suggest that for multilingual nutrition information labelling to function, English and an alternation of the two languages according to the groupings can facilitate a feasible production of nutrition information labels in the languages of the people.

2.15 CONCLUSION

This chapter consisted of an overview of the main domains the study will be focusing on. The chapter starts by providing an overview of the current linguistic setting in South Africa and continued to look at the legislations that both supported and seeked to promote South Africa's linguistic diversity. The chapter further took a look at legislation that talks to the labelling of food products; concentrating on the parts of the legislation that speak to labelling language on food products.

The chapter further gave light to other variables that contribute to the need for multilingual labelling in South Africa. The chapter established important links which cannot be separated between and within the variables discussed; for example, the relationship between both *education and health* and *health and income*. Such relations can't be separated when dealing with provision of information on nutrition information labels. The chapter also dealt with concepts central to the study. It looked thoroughly at multilingualism and related factors that contribute to the need of nutrition information labels in the language of the consumers in South Africa.

The next chapter deals with and justifies research and methodology procedures and processes followed in conducting the present research study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The aim of this chapter is to deal with the research design and methodology. It discusses and justifies sampling procedures, the choice of data collection tools and data analysis approaches. The research design is a structured approach to data collection which addresses the research hypothesis and associated research investigative questions. The research design, according to White (quoted in Frouws, 2007:56), should specifically focus on two aspects:

- **The research approach**: Whether the research is qualitative, quantitative or both.
- **The research methods**: Whether the research will find answers to the research questions.

3.2 RESEARCH DESIGN

Blanche, Durrheim and Painter (2006:34) define research design as a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research. A more specific definition of a research design, taken from Bless and Higson-Smith (2000:63), is that "it relates directly to testing of hypotheses". The research design ensures that (1) the study fulfils a particular purpose, and (2) the research can be completed with available resources (Blanche *et al.,* 2006:34).

Research design is developed in accordance with scientific principles to ensure that findings will stand against scrutiny. The same principle is expressed differently by Bless and Higson-Smith (2000:63) who state that "in order to achieve the objectives of social research, the researcher requires a carefully thought-out strategy". The scientific principles or the thought-out strategy alluded to above relate to the focus and units of analysis which concentrate on the people from which the researcher gathers data (Bless & Higson-Smith, 2000:63). The same scholars on page 64, continue to say that the focus of research determines the type of research needed which may be understood in terms of three different categories: condition, orientation and actions:

- Condition: the study looks at the current condition and impact of monolingual nutrition labelling on some consumers in South Africa.
- Orientation: the study purposely aims to determine the attitudes of consumers towards their languages and their use in the mainstream of nutrition labelling.
- Action: consumers' actions when purchasing food products and their use of nutrition labels are indirectly observed by reliance on questionnaire responses on questions addressing label usage.

The researcher keenly recognises these three categories simultaneously in the current study. The decision is educated by the statement that "in most cases, these three categories are not mutually exclusive" (Bless and Higson-Smith, 2000:64). To identify the object of the study, the researcher has to specify who or what the study wants to draw conclusions about. Blanche *et al.*(2006:41) posit that there are typically two aspects of these 'objects' of study that are worth defining:

1. The units of analysis that are the focus of the investigation.
2. The variables which are features of these objects that are to be observed or measured.

Bless and Higson-Smith (2000:64) define a unit of analysis as the person or object from whom the social researcher collects data. There are several different types of units of analysis. Focus of the current study is limited to the experiences of the individual person according to the operational classification below. The unit of analysis for the present study is twofold in that it represents individuals from differing social levels in terms of where they live and do their shopping. The study's units of analysis are (for the current research, the operational classification of these units is also provided below):

- The semi-urban area unit: This unit is on average extremely poor with high levels of unemployment – and such employment involves migrant work and may comprise one or more of the following: tribal areas, commercial farms and informal settlements.
- Urban area unit: This unit consists of individuals from more affluent geographical areas that are characterised by better infrastructure such as universities, malls, schools, hospitals, clinics and tarred roads.

The two differing units of analysis for the questionnaire section of the study were chosen because they provided different social environment from which consumers' decisions in making food product choices is made. The researcher expected differences between the selected units of analysis in terms of the ability in comprehending the English language and the mutual understanding of the current nutrition terminology, even for those with adequate English comprehension.

The researcher's decision to focus on two units of analysis is also educated by the fact that most researchers in South Africa addressing health related matters focus on the two main units: urban and semi-urban areas (also see Ditlopo, Blaauw, Bidwell and Thomas, 2011). Furthermore, the current study's decision on the units to be analysed is based on the Department of Health's division of the South African health system into both urban and semi-urban areas. The Department also directs most of its drives to both units in trying to improve access to and quality of health in South Africa.

Bless and Higson-Smith (2000:66) contend that "a fundamental aspect of any research is the manner in which it deals with time". In most social research studies, Blanche *et al.* (2006:43) point out that introducing the time factor improves the quality of the research. A cross-sectional research design is chosen for the present study. The decision is based on the view that data for the study will be collected at relatively the same time (within a few weeks) as opposed to diachronic research which involves the observation of the units of analysis over a period of time. The cross-sectional design is the most common type used in social research and is used in the current research specifically because of its immediate nature as well as the relative ease of data collection.

3.3 THE CHOICE OF RESEARCH METHODS

Diko (2005:42) advances that research methods are vehicles through which researchers attempt to provide answers to research questions. The researcher employed various characteristics of the two main research methods of data collection in the current study. In nearly all cases in research, the line between the quantitative and qualitative method is somewhat blurred. In fact, a comprehensive study will use both and cannot strictly be called either quantitative or qualitative

(Bless & Higson-Smith, 2000:38). Du Plooy (2002:81) argues that the two main methodological designs, quantitative and qualitative approaches, should not be seen as mutually exclusive, and in this study, the research design included characteristics of both approaches, thereby employing a mixed method called triangulation.

The mixed method allowed the researcher to collect data with the view of increasing the reliability of the study by:

- Using inductive and deductive reasoning in the study;
- Adding depth and insight to numbers through inclusion of dialogue;
- Adding precision to words through inclusion of numbers tallying and statistics;
- Making results more generalisable;
- Allowing the facilitation of capturing varied perspectives.

The above-mentioned characteristics and the reasons why the mixed method is used in the study can be grouped into two approaches, and they are individually defended below and argued for being operational in the research.

3.3.1 Quantitative approach

The approach is used in the study by employing a closed-ended questionnaire and by describing the variables concerned with data collection. According to Bless and Higson-Smith (2000:37), the approach relies on measurement to compare and analyse different variables and scales. The approach enables the researcher to describe the characteristics of the study's population and to produce numerical data by assigning numerical values to questionnaire participants' responses.

The choice for the approach was also influenced by the researcher's need to confirm the stated study hypothesis. As the research aims to predict the causal relationship between the variables discussed in Chapter 1, and to quantify the variation in the study, a quantitative approach allows the researcher to meet the set aims. The quantitative study design is stable from beginning to end (Mack, Woodsong, MacQueen, Guest & Namey, 2005:03), thus giving reliable data as the participants' responses did not influence or determine which question the researcher asked next.

This methodology is employed in the study to investigate whether consumers use nutrition labels and, if not, whether language acts as a barrier to the information on the labels and to also determine the language preferred by consumers for nutrition information labelling.

3.3.2 Qualitative approach

The present research included characteristics of the qualitative approach in data collection by interviewing the dieticians based on the fact that the approach strongly recognises the value of depth over quantity, and works at delving into social complexities in order to truly explore and understand the interactions, processes, experiences and belief systems that are part of the individual and their everyday life (O'Leary, 2010:113-114).

The approach enables the researcher to listen to the voice of participants through the use of semi-structured interviews. The researcher was able to explore the area of nutrition labelling language, which is an area where limited and to an extent, no prior research exists. An interview schedule with dieticians was used to collect data. The schedule was made up of open-ended questions which enabled participants to voice their thoughts and professional opinion regarding the study's research problem and in testing the research hypothesis. The researcher was also able to centre the analysis of collected data on content analysis, which, according to Du Plooy (2002:84), is a systematic analysis of verbal responses.

In this study, data was collected by employing a semi-structured questionnaire schedule for individual interviews with dieticians, using a tape recorder to record the verbal interactions.

3.4 DATA COLLECTION TOOLS

This section focuses on the different instruments and tools used to collect data relevant for the current study. The study relies on data collection to establish and improve a factual basis for decision-making. The utilised instruments and tools are presented to provide motivation for their inclusion in the study. Those include a literature review, a self-administered questionnaire and semi-structured interviews.

3.4.1 Literature review

The primary purpose of doing a literature review is to assist in attacking the problem for research (Leedy, 1993:87). According to Du Plooy (2002:93), collection of data can be based on existing information. These include primary sources available from libraries and on the Internet. According to Walliman (2005:75), doing a literature review means not only tracking down all the relevant information but also taking a critical position on the ideas contained therein, and producing an argument that leads to the exposition of the research.

When doing the literature review, it is worth noting that not all of the material the researcher reads will be relevant to the study's interests, and where it is relevant, not all of the ideas observed will be agreeable with the research. In this research, the researcher uses the most recent publications, books, journals, research reports, dissertations and theses which contain very useful summaries, criticisms and critical evaluations of earlier works of literature. The researcher set to review literature that particularly points to the language situation and how it affects health decisions and impacts on the status of health, and to look at other factors that contribute to barriers in accessing health information.

3.4.2 Development of study questionnaires

A questionnaire is a self-report data-collection instrument that each research participant fills out as part of a research study (Johnson & Christensen, 2012:197). As a method of data collection, the questionnaire is a very flexible tool and can be a relatively economic method, in cost and time, of soliciting data from a large number of people (Walliman, 2005:181). For the above-mentioned reasons, questionnaires were used as the data collection method in the research study.

The questionnaire part of the data collection in the study was conducted in 2013 in shopping complexes around Pretoria. The one shopping complex is situated in Soshanguve, representing the semi-urban population of the study; the other in Sancardia Shopping Complex, which represented the urban population of the study. Each of the two shopping complexes was represented by 50 respondents. The combined number of respondents from both the shopping complexes made it possible for the researcher to collect data from all the anticipated number of respondents. The researcher personally visited the shopping complexes to respond to any question the respondents might have had regarding the study data collection tool and the study in general. The researcher had the questionnaire prepared in eight languages to cater for the chosen population of the study.

The questionnaire (see Appendix D) consists of three sections. The first section (section A) contains the instructions for completing the survey (including an example on how to mark and complete the questionnaire). Section B contains questions regarding biographic and demographic information required from the respondents. The last section, Section C, contains the survey questions. The study questionnaire employed the closed-ended questioning technique. The reasoning for this decision is discussed in 3.4.2.1 below.

The questionnaire was originally composed in English and subsequently translated into the seven languages which are the target languages of the current study. That resulted in the questionnaire being translated by the translators in the National Language Service (NLS) of the Department of Arts and Culture (DAC). Each questionnaire was translated by a language specialist responsible for that particular language in their daily activities in the Department. That made the translations to be valid, reliable and trustworthy as language misunderstandings were avoided.

3.4.2.1 Closed-ended questions

This technique is used in the current study as the questionnaires contain a fixed number of answers from which respondents have to select a specified number of responses or to select one (Du Plooy, 2002:138; Bailey, 1987:118). One other reason for using closed-ended questions in the study is that they provide standard responses which can be compared from person to person and the standard responses are easier to code and analyse (Bailey, 1987:118).

Du Plooy (2002:139) is of the view that an important requirement of a closed-ended question is that respondents must commonly understand the language and terms used. For that reason, the researcher used unambiguous language and translated the questionnaire into the languages of the targeted respondents to allow them the opportunity to provide answers to questions in a language they commonly understand and prefer.

3.4.3 Semi-structured interviews

An interview is defined by Johnson and Christensen (2012:198) as a data-collection method in which an interviewer (the researcher) asks questions to an interviewee (the research participant). According to Denscombe (2010:157), with semi-structured interviews the interviewer still has a clear list of issues to be addressed and questions to be answered. However, with the semi-structured interview, the interviewer is prepared to be flexible in terms of the order in which the topics are considered, and, perhaps more significantly, to let the interviewee develop ideas and speak more widely on the issues raised by the researcher.

The study seeks to reveal challenges concerning monolingual nutrition information labelling and potential solutions through discussions with professional dieticians and employed semi-structured interviews for this purpose. The study also addresses the impact of, and attitude to, language used in product labelling. Individual in-depth interviews with dieticians were selected as the most appropriate data collection tool to investigate opinions and consequences of the language on health issues. A semi-structured interview guide was developed which allowed for flexibility within the discussion, and explored the dieticians' perceptions regarding the introduction of multilingual labelling system and its possible forecasted impact on consumer health.

The interview schedule (see Appendix B) used in the research was compiled in English because the target respondents are professional dieticians who are competent in the language. The schedule is divided into two sections, A and B. Section A brought forth the professional background of the respondents. The home language is another key element of this section as the researcher will seek to find out whether these professionals use their home language in explaining concepts to their clients. Section B contains ten open-ended questions which are directed to the professional dieticians to find out their experience regarding labelling and client understanding in their daily practice.

The interviews with respective dietician professionals were conducted in 2013 at two public hospitals around Pretoria. The hospitals were chosen based on the differing population they serve and where they are situated. The one hospital is in Mamelodi, which catered mostly for people in the semi-urban part of Pretoria. The other hospital is in Arcadia, situated in the urban area of the city of Pretoria. The two areas and professionals working in those areas provided rich data which indicated the difference in their experience when it comes to their patients' health and their patients' level of comprehending English.

3.4.3.1 Transcribing the interviews

The first step in analysing the data gathered via interviews was to transcribe the audio tapes. This allowed the researcher to handle the data physically for ease of analysis processes (O'Leary, 2010:259) and to stay close to the data in order to interpret it from a position of empathic understanding (Blanche, Durrheim & Painter, 2006:321).

The information from the audio tapes was transcribed word for word with as little editing as possible, which increased the readability without altering the respondents' comments. This meant that poor grammar, incorrect sentence construction and any other language mistakes from the audio tapes were not corrected or edited, presenting the conversations in their original form.

3.4.3.2 Generating themes, categories and sub-categories

The researcher moved from the raw data (the transcripts) to meaningful understanding by a process reliant on the exploration of themes from the prepared transcripts which allowed for the identification of prominent themes and recurring ideas from respondents. Grounded theory techniques, which are central to qualitative data analysis strategies (O'Leary, 2010:261), were employed in this study and data was reduced to themes, categories and sub-categories (using Atlas.ti statistical software) centred on the following concepts (see Table 3.1 for a summative outline):

Table 3.1: Summary of themes, categories and sub-categories

Themes	Categories and sub-categories
1. General health status of ordinary South Africans	1.1 Adoption of Westernised diet and way of life which leads to overweight for most consumers 1.2 The scourge of communicable and chronic diseases
2. The education level of consumers of food products	2.1 The quality and standard of education act as a barrier for consumers to work out arithmetic and measurements involved when interpreting labels 2.2 Negative attitude towards labels because of illiteracy and lack of knowledge from those literate
3. Exclusive use of English in nutrition information labelling industries	3.1 The acknowledgement of English as the primary language for nutrition information labelling in South Africa 3.2 Lack of English proficiency and understanding as a disadvantage in consumers using nutrition information labels
4. Socio-economic setting of consumers/patients	4.1 The influence of economics on the time available for shopping which influence the food choices 4.2 The value of money consumers have to make food choices and the areas available to them for purchasing food
5. The development of South African indigenous languages	5.1 The need to develop indigenous languages' terminology for use in nutrition information labels

The information in Table 3.1 provides a profile summary of the semi-structured interviews with the respondents regarding the prominent points they raised concerning the impact of monolingual labelling on consumers' health status in South Africa.

3.4.3.3 Face-to-face interview

According to Colombotos (1969:782), previous research has indicated that personal interviews are more likely to elicit socially acceptable responses because of the "social component of involvement" between interviewer and respondents. Diko (2005:46) emphasises the point, stating that there is a high response rate since there is a face-to-face encounter between the researcher and the respondents, which facilitates cooperation which, according to Leong and Austin (2006:121), the researcher needs to gain from participants in order to have relevant responses.

In the study, these interviews are used to question nutrition experts who are professionals who deal with the consequences of nutrition challenges from their patients/clients and would have a better idea of what causes the problem and also how the problem can be overcome, provided there is a problem regarding nutrition information access.

3.4.3.4 Open-ended questions as a technique in semi-structured interviews

The researcher utilises open-ended questions to allow respondents to answer questions in their own words and because they are particularly useful if the researcher wants to encourage respondents to express attitudes or opinions in their own words (Du Plooy, 2002:138), to respond in detail, to clarify and qualify responses (Bailey, 1987:120).

Another motivator for the decision to employ open-ended questions is that they do not have structured or specified answers; therefore, they can elicit underlying ideas, feelings, sentiments and suggestions that researchers may not even have considered (Du Plooy, 2002:143). A tape recorder and note-taking are used during the interview to ensure reliability and validity of the interview data and to aid in the analysing and coding of the data from the interview sessions.

3.4.3.5 Prompting as a technique in semi-structured interviews

Prompts are essentially contingency questions to be used only if the respondent answers earlier questions in a certain way (Bailey, 1987:189). According to Leech (2002:667), prompts are as important as the questions themselves in semi-structured interviews. They do two things: they keep people talking and they rescue the researcher when responses turn to mush. Prompts help the researcher, where necessary, obtain response clarity and/or additional information on posed questions (Johnson & Christensen, 2012:198).

Prompting is used in the study to get completeness and clarity regarding the respondents' answers. That being the case, not all the interview questions in the study required probes as it was limited to cases where hesitation in responding from participants occurred or for where unclear or incomplete answers were provided.

3.5 RELIABILITY AND VALIDITY

Bless and Higson-Smith (2000:125) assert that measurement techniques are evaluated in terms of reliability and validity. Their point is supported by Leedy (1993:40), who states that "with any type of measurement, two considerations are very important. One of these is validity, the other is reliability". The two techniques are controlled in the study and the reason for that is provided below.

3.5.1 Reliability

Measurement reliability means that a measure must be stable and consistently produce the answers over a period of time (Du Plooy, 2002:121). The current study utilised a quantitative approach through the use of a standardised questionnaire to manage reliability. The researcher standardised the questionnaire by asking the respondents the same question in the same way. The instructions for completing the questionnaire were also the same to all respondents and the researcher read out the instructions to participants before they started to complete the questionnaire. Questionnaires proved reliable because they gave the same score when used to measure unchanged values, therefore being trusted to provide accurate answers. Bless and Higson-Smith (2000:126) states that the greater the consistency in the result, the greater the reliability of the measuring procedure.

3.5.2 Validity

In social research, validity can be observed during different stages of the research project. The researcher deals with validity during the research design stage and validity of data collection instruments.

Bless and Higson-Smith (2000:80) postulate that the potential of a design to establish a relationship between the independent and dependent variables with a high degree of certainty is regarded as being valid. During the research design stage, validity is measured in terms of two separate but related dimensions.

There are factors that threaten the validity of a research design. Those are discussed and controlled in this study (see 3.5.2.1). These factors, according to Du Plooy (2002:84-85), are influenced by the time dimension. In controlling and neutralising the time dimension, the researcher employed a cross-sectional design. This meant that the research is conducted over a short period of time – one day or a few weeks (Du Plooy, 2002:85). The use of this time design supported the researcher in dealing with time factors that could have affected the internal and external validity of the study design (see 3.5.2.1. and 3.5.2.2.).

3.5.2.1 Internal validity

Bless and Higson-Smith (2000:80) state that internal validity examines the extent to which a research design has excluded all other possible hypotheses which could explain variations of the dependent variables.

To control time dimension threats in internal validity, the researcher concentrated on the following:

- Drawing of a random sample of respondents;
- Constructing reliable measuring instruments;
- Maintaining no intrusion, direction and disruption on what was researched;

- Maintaining effectiveness of manipulating the independent variable to be assured that it produced an effect on the dependent variable.

3.5.2.2 External validity

External validity concerns the external question of whether or not the results will remain truthful when subsequently applied to people, situations or objects outside the original investigation (Locke, Silverman & Spirduso, 2010:81). In other words, external validity addresses the extent to which the researcher is able to generalise the results of the research sample to the entire study population.

In addressing external validity, the researcher chose a sample that is representative of the population in question so as to tolerate generalisation. The choice of the study's population and the research sample are discussed below (see 3.6). The researcher further protected the study's external validity by minimising reactive effects through making data collection unobtrusive and by testing people within their usual surroundings.

The researcher dealt with time dimension threats to external validity in the study by firstly drawing a representative sample from the population. Secondly, the research was conducted in real-world settings as opposed to artificial settings. Lastly, in enhancing the external validity, the researcher avoided multiple measurements of a single subject as the questionnaire was circulated to participants once and the interviews were conducted once with the respected dieticians.

Bless and Higson-Smith (2000:126) state that no measurement technique or research study is perfect. It then becomes the responsibility of the researcher to deal with all threats that could compromise the study. The researcher took reasonable steps in addressing and countering the threats to reliability and validity in this study.

3.6 RESEARCH POPULATION AND SAMPLE

The researcher's aim is to get the research question answered; it therefore becomes critical to select carefully the population that holds the answers to the question. A common goal of survey research is to collect data and research possible answers of a representative population (Bartlett, Kotrlik & Higgins, 2001:43). Du Plooy (2002:99) asserts that it is often not practical, feasible or financially viable to investigate an entire population. When sampling, we study the characteristics of a subset selected from a large group in order to understand the characteristics of the large group.

3.6.1 Research population

As noted by Bless and Higson-Smith (2000:84), a research population is the entire set of objects or people which is the focus of the research and about which the researcher wants to determine some characteristics.

The population for this study is made up as follows:

- People selected were adult mother-tongue speakers of at least one of the indigenous languages of South Africa belonging to either the Sotho or Nguni language group;
- The respondents had to be consumers who have bought food products bearing a nutrition label on the day of the research from the selected retail shops;
- They had to have a basic literacy rate to complete the questionnaire;
- Persons interviewed were dieticians in public health care.

The consumers were selected on the ground that they are the ones who are directly affected by the decision-making when it comes to food products and are best to describe their experiences and preferences when it comes to nutrition and the language used to provide information.

3.6.2 Research sample

Blanche, Durrheim and Painter (2006:49) define research sample as the selection of research participants from an entire population, which involves decisions about which people, settings, events, behaviours, and/or social processes to observe.

This implies that it is not necessary to investigate the entire population, but the accuracy and representativeness of the sample must be ensured by the researcher. According to Bless and Higson-Smith (2000:86), a representative sample allows for an accurate generalisation of the study's findings.

A probability sample is used in the current study by employing a simple random sample technique. This decision is based on Blanche *et al.* (2006:49) stating that "to achieve representativeness, researchers draw a random sample". A random sample is also employed in the present research because the study's population is uniform and has similar characteristics. This allowed the researcher to make generalisations from the data collected in the study as every member of the study's unit of analysis had an equal chance of being selected.

3.7 RESEARCH SAMPLE SIZE

A very significant concern in sampling is to determine the most adequate size of the sample. Bartlett, Kotrlik and Higgins (2001:43) noted that the determination of sample size is a common challenging task for many researchers, where inappropriate, inadequate, or excessive sample sizes continue to influence the quality and accuracy of research. In the current study, sample size is determined in part by unavoidable practical constraints. Those include, but are not limited to, available funds, money, and the number of accessible respondents to the researcher.

3.7.1 Selection of respondents

3.7.1.1 Questionnaires respondents: Consumers

After the decision on the population for the study, a questionnaire was randomly circulated to 100 sample respondents. The number was chosen owing to the purpose and scale of the research project which takes into consideration time and monetary constraints. The uniformity of the population established the selection of the sample size. Thus, the study will not focus on the whole of South Africa. Only 100 respondents from Pretoria in Gauteng province were considered. The decision to use Gauteng is based on the grounds of its linguistic diversity. Of the other eight provinces in South Africa, Gauteng is the most multilingual province. One other main reason for selecting Pretoria is that it is accessible and is the place of residence of the researcher.

3.7.1.2 Interview respondents: Dieticians

Three dieticians were selected from three public health care facilities in South Africa which are accessible to the researcher. The dieticians were also selected on the basis that they should be speakers of one of the indigenous languages of South Africa, belonging to either the Nguni (isiZulu, isiXhosa, isiNdebele and Siswati) or the Sotho (Sesotho, Setswana and Sepedi) category, and who predominately worked with clients using a South African indigenous language.

The researcher interviewed dieticians for their professional experience regarding the nutrition and health relationship and the role played by the language used in relaying nutrition information. The aim was to elicit their view on the issue of language impact on consumers' health in South Africa and also for their experiences of dealing with non-English speakers and their take on the introduction of multilingual labelling for nutrition information.

3.8 ETHICAL CONSIDERATION CONCERNING RESPONDENTS

As stated in Chapter 1, ethical issues are present in any kind of research, and pertain to doing good and avoiding harm. Blanche *et al*. (2006:61) posit that the essential purpose of research ethics is to protect the welfare of research participants. The present study observed and worked in line with the following ethical considerations (see Apendix G):

- Being a social research project which involves participants, the data collection tools of this study were independently reviewed and approved by the Tshwane University of Technology (TUT) Research Ethics Committee (REC) before data collection commenced;
- An information leaflet detailing the aims, risks, potential benefits, the issue of compensation or incentive, the rights of participants, and how confidentiality and anonymity will be ensured was made available to all respondents;
- A voluntary consent form was prepared and signed by the respondents before participating in the study;

- The contact details of the study panel were provided in case respondents had points that needed clarification.

3.9 CONCLUSION

This chapter focuses on the justification of the methodologies employed in the research study and the reasoning behind the choice and implementation of each method. The criterion used for the selection of the research participants is also explained.

The use of mixed methods is explained and justified which include the usage of two methods of research: quantitative and qualitative. The combination of the two methods, which served to mitigate the shortcomings of each method with the employ of a mixed method is highlighted. The discussion on the use of the mixed method as a source of reliability and validity formed part of the chapter. The chapter further discussed the three instruments used to collect data, namely literature review, questionnaire and semi-structured interviews. The chapter to follow presents a comprehensive analysis and interpretation of data.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

4.1 INTRODUCTION

This chapter details the presentation of data analysis and interpretation collected using the research methods supported in Chapter 3. This is a crucial step in the research process because, according to Du Plooy (2002:93), the analysis and interpretation of data form the basis of conclusions and recommendations. The study seeks to generalise the findings from the sample to the larger study population and Bless and Higson-Smith (2000:137) posit that the data analysis process allows the researcher to generalise from the sample to the population in which the researcher is interested. In research, interpretation is defined as the scientific measurement and observation to develop evidence for responding to a study question, and Byrne (quoted in Phaahla, 2006:110) defines analysis as the breaking up of something into its constituent parts and explaining the whole in terms of the properties of the parts.

The discussions in this Chapter are themed according to phases. The first themed phase analyses and interprets the questionnaire part of the study with the second themed phase dealing with the interpretation and analysis of the interview part of the study. In the presentation of results, the questions posed are changed and presented as statements to allow for accurate and coherent reporting.

Phase 1: The questionnaire survey (quantitative approach)

- The biographical and demographic information;
- Socio-economic status of the respondents;
- Education level of the respondents;
- Attitude towards respondents' home language development;
- The use of nutritional labels;
- Frequency of use and understanding of nutrition information label language;
- Respondents' view on indigenous languages being used on nutrition information labels;
- Suggested measures that can help in promoting label usage.

Phase 2: The semi-structured interviews (qualitative approach)

- General health status of ordinary South Africans;
- The education level of consumers;
- Exclusive use of English in nutrition information labelling industries;
- Socio-economic settings of consumers/patients;
- Development of South African indigenous languages.

The themes constructed for both phase 1 and phase 2 of the study represent the main research objective by determining the impact of monolingual nutrition information labels on consumers' health in South Africa.

4.2 PHASE 1: THE QUESTIONNAIRE (Quantitative analysis and interpretation)

4.2.1 Biographical and demographic information

The results in Table 4.1 below indicate that the study population was divided into two units of analysis. These units of analysis were made up of 100 individuals from both semi-urban (50%) and urban (50%) communities. Table 4.1 further shows that 69% of the respondents were females and 31% males. All respondents were black African (100%). Lastly, Table 4.1 indicates that 36% of the respondents were aged 18–29 years and 51% were between 30 and 49 years, while 13% of the respondents were 50+ years.

Table 4.1: Respondents' biographical and demographical information

Area	**%**	**Gender**	**%**	**Race**	**%**	**Age**	**%**
Semi-urban	50%	Male	31%	Black	100%	18-29yrs	36%
Urban	50%	Female	69%			30-49yrs	51%
						50+	13%

4.2.2 Socio-economic status of the respondents

In Chapter 2 (see 2.4), Medrano, Rodriguez and Villa (2008:612) suggested that low-income households have less education and are probably less healthy than wealthier ones. As a result, the researcher sought to find out how the impact of economics from the two units of analysis differed and how the differences influenced food availability and choices and, most importantly, the use of nutrition labels in English. Figures 4.1 to 4.3 give insight into the respondents' views regarding socio-economic status and the use and understanding of food nutrition labels.

Figure 4.1 below shows that the majority of respondents (53%) earned between R100 000 and R199 000 annually, and 28% of the respondents had an annual income of R200 000+, with 19% of the respondents having the least annual income of between R10 000 and R99 000. A further point of interest for the researcher was to compare the socio-economic status of the two units of analysis chosen for the study. The base for the point of interest is that the respondents' socio-economic background is decisive for the kind of foods available to respondents, which in turn influence the general health of consumers.

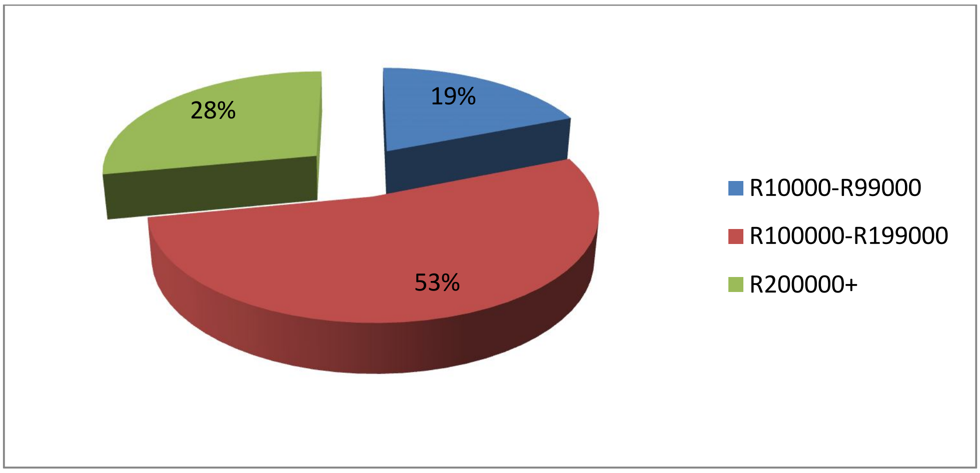


Figure 4.1: The socio-economic status of the respondents

Table 4.2 below shows that the income level of the semi-urban and urban area respondents is significantly associated at the 5% level: p=0.000. The results further indicate that 10% of semi-urban respondents have an annual income level of R200 000+ as compared to the urban areas with 46%. Furthermore, 60% of semi-urban area respondents indicated an income level of between R100 000 and R199 000, while 46% of respondents in urban areas showed the same annual income level. Lastly the results point out that 8% of urban areas had an annual income level of between R10 000 and R99 000, and the same income range was recorded at 30% for those in semi-urban areas. The results appear to support the conclusion that the majority of urban area respondents had a higher annual income when compared to the semi-urban respondents' annual income.

Table 4.2: The relation between respondents' area and income

Variable 5: Income level per annum								
Area	**R10 000-R99 000**		**R100 000-R199 000**		**R200 000+**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Semi-urban	15	30.00	30	60.00	5	10.00	50	100.00
Urban	4	8.00	23	46.00	23	46.00	50	100.00
Total	19	19.00	53	53.00	28	28.00	100	100.00
Pearson chi2 (2) = 18.8644 Pr = 0.000								

In establishing the relation between economic background and nutrition labelling usage, the researcher looks at both Figures 4.2 and 4.3 which show the relation between the economy and usage of nutrition information and understanding of nutrition labelling language.

Figure 4.2 below shows that of the respondents who had an annual income level of between R10 000 and R99 000, 78.95% stated that they used nutrition information labels, while 21.05% claimed not using the information on labels. The respondents who had an annual income level between R100 000 and R199 000 indicated that 86.79% used labels and 13.21% did not use the labels. Lastly, the relation between income and usage of nutrition labels indicated that of those respondents having an annual income level of R200 000+, 3.57% indicated that they did not use labels and 96.43% used nutrition labelling information. This indicates that people with higher income earnings are more likely to use nutrition information labels when compared to those with lower earnings.

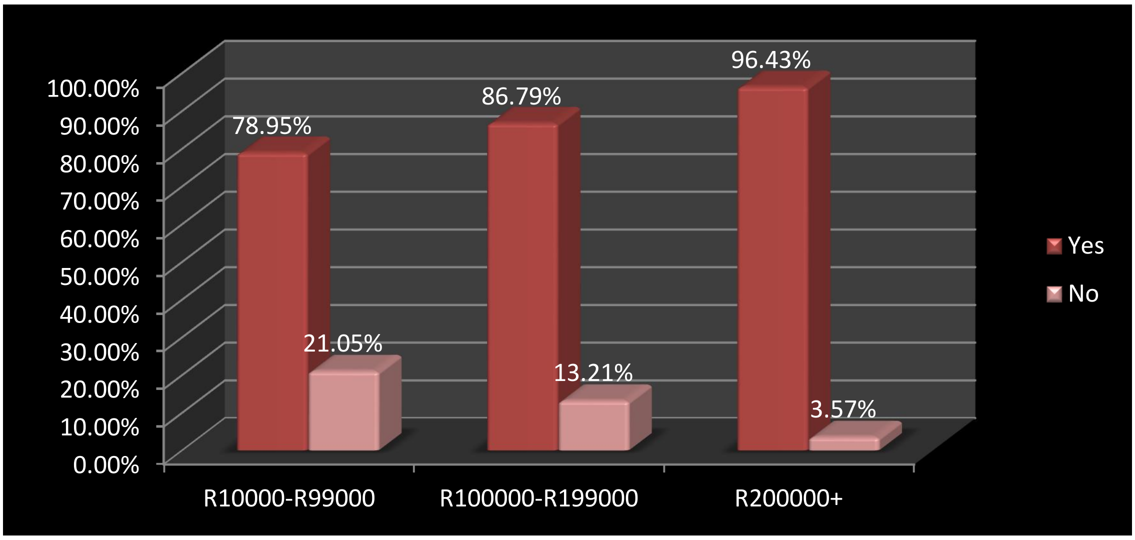


Figure 4.2: Income level per annum compared with usage of nutrition information labels

The point of respondents' usage of nutrition information labels led the researcher to establish if economics play a role in understanding of nutrition information labels. Figure 4.3 below indicates for those respondents who had a R200 000+ income level per annum, 96.43% showed that they understood the language used for nutrition labelling and 3.57% did not have an understanding of the labelling language. 81.13% of respondents earning between R100 000 and R199 000 understood the language used on nutrition information labels and 18.87% did not understand the language used. 15.79% of respondents having an income level between R10 000 and R99 000 did not understand the language used in nutrition information labels and 84.21% had an understanding of such a language.

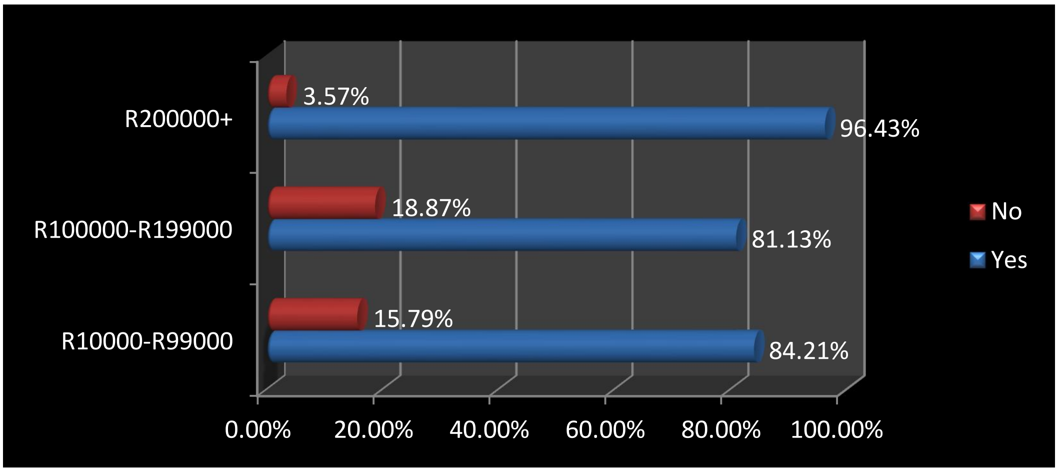


Figure 4.3: Income level per annum compared with understanding of nutrition labelling language

4.2.3 Education level of the respondents

The Community Survey (2007:28) suggests that through education, individuals are prepared for future engagement in the labour market, which directly affect their quality of life and the economy of the country. In looking at the education level of respondents, the research found that according to Figure 4.4, 53% of the respondents had acquired a post-secondary education and 47% indicated that they had achieved a level between Grade 8 and Grade 12.

It is worth noting that there were no respondents without formal schooling and no one indicated having a level of education between Grade 1 and Grade 7, which aided in the completion of the data collection tool and also proves that all respondents had a literacy level of Grade 8 upward. The above-mentioned allows the researcher to make the assumption that all respondents had been in contact with English in their schooling and their use or non-use of nutrition labels can be attributed to the quality and acquired level of English they received in their schooling.

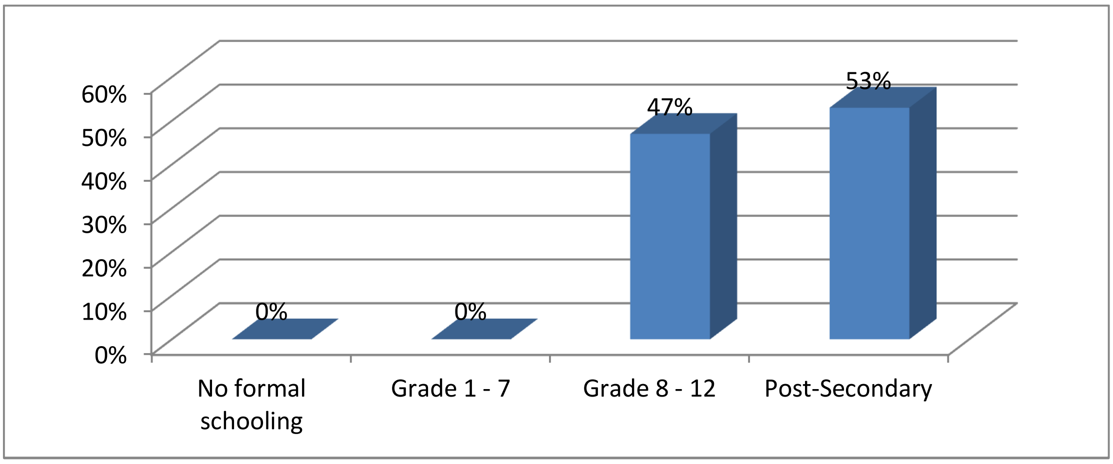


Figure 4.4: Respondents' education level

As posited by Ford (2007:02), there is a direct relationship between education and health, as better educated individuals have more positive health outcomes. Therefore, the researcher took an interest in a comparative analysis and interpretation of the semi-urban and urban areas' units of analysis concerning the education level. The researcher's aim is to determine whether the health of the two units of analysis will differ according to the level of education, which in turn has an influence on the economics of respective respondents. The results are presented and interpreted below.

Table 4.3: Comparative look at the relation between area and education level

Variable 4: Education level						
Area	**Grade 8 – 12**		**Post-Secondary**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
Semi-urban	39	78.00	11	22.00	50	100.00
Urban	8	16.00	42	84.00	50	100.00
Total	47	47.00	53	53.00	100	100.00
Pearson chi2(1) = 38.5789 Pr = 0.000						

One's education level influences their ability to comprehend nutrition labels, and the study looks at the relation and impact of an area where one lives on their education and use of nutrition labels. As indicated in Table 4.3, 78% of the semi-urban respondents indicated that they had an education level of Grade 8–12, while 22% had a level of post-secondary. When it comes to urban respondents, 16%

reported an education level of Grade 8–12, while 84% showed that they had a post-secondary level of education, thus indicating that the majority (78%) of semi-urban respondents had a lower education level and that might have negative impact on their use and level of understanding nutrition information labels provided in English when compared to the urban respondents of whom the majority indicated a post-secondary level of education.

4.2.4 Attitude towards respondents' home language development for business communication

In terms of Figure 4.5 below, 98% of respondents indicated that they were in favour of their home language being developed for use in business communication and a 2% minority were not in support of their language being developed for business communication.

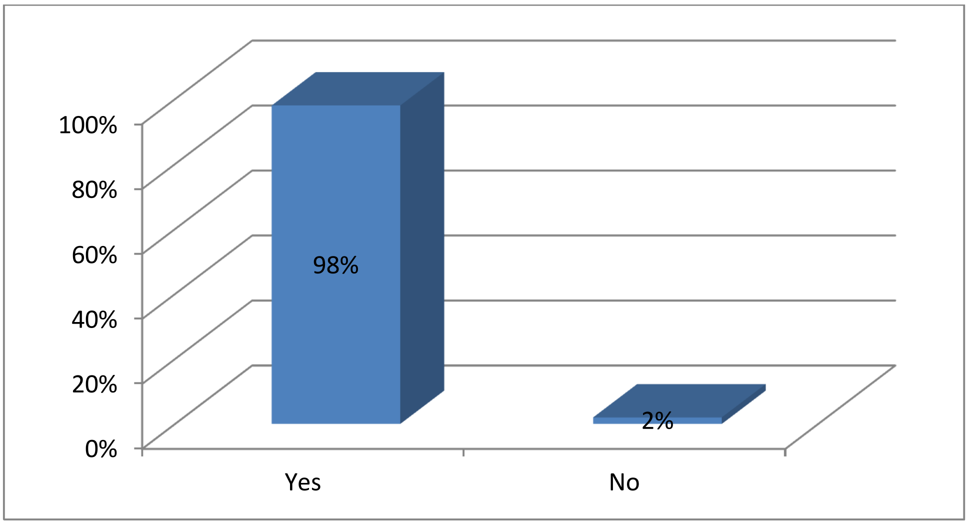


Figure 4.5: Respondents' attitude towards home language development for business communication

Table 4.4 below shows the relation between semi-urban and urban area respondents and their attitude towards the development of their home language for business communication. The table shows that 96% of the semi-urban area respondents were in favour of their language being developed for business communication while 4% were not in support of such development. The table further indicates that all the respondents (100%) from urban areas were in support of their home language being developed for usage in business communication.

Table 4.4: Influence of respondents' area on attitude to home language development

Variable 10: Importance of developing home language						
Area	**No**		**Yes**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**
Semi-urban	2	4.00	48	96.00	50	100.00
Urban	0	0.00	50	100.00	50	100.00
Total	2	2.00	98	98.00	100	100.00
Pearson chi2(1) = 2.0408 Pr = 0.153						

According to Figure 4.6 below, Setswana at 28% was the language used by most respondents when communicating with family and friends. It was closely followed by Sepedi with 27%, while isiZulu recorded 17%. isiNdebele, with 13%, was the fourth most spoken language when respondents communicated with family and friends. The other languages which indicated a lower percentage of users were Siswati (2%), Sesotho (5%) and isiXhosa (8%).

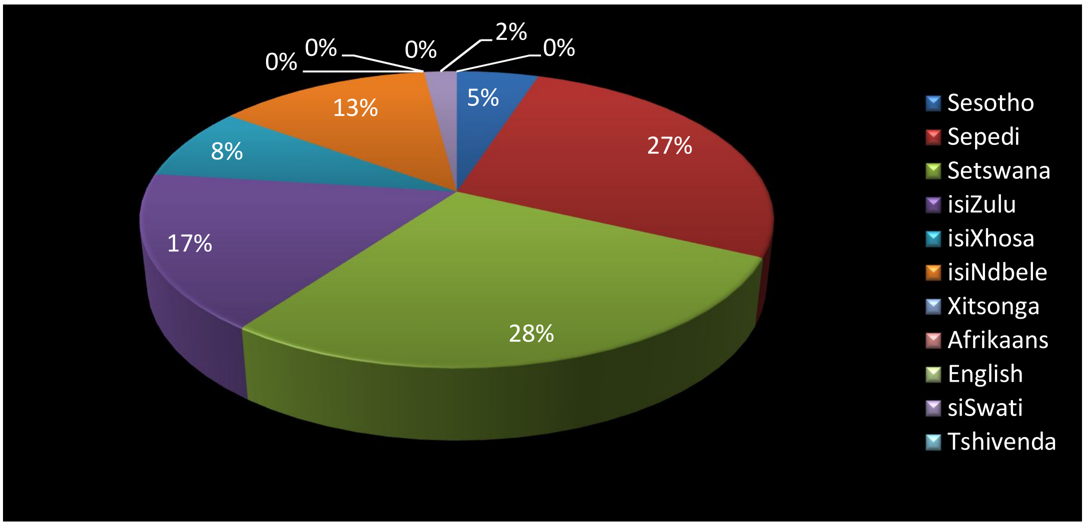


Figure 4.6: Distribution of language used with family and friends

Figure 4.7 below shows the similarities between respondents' home language and the use of that language in interactions with family and friends. The indication is that all the percentages as recorded in the above Figure 4.6 are also the same in the figure below, which reflects home language and usage in social settings.

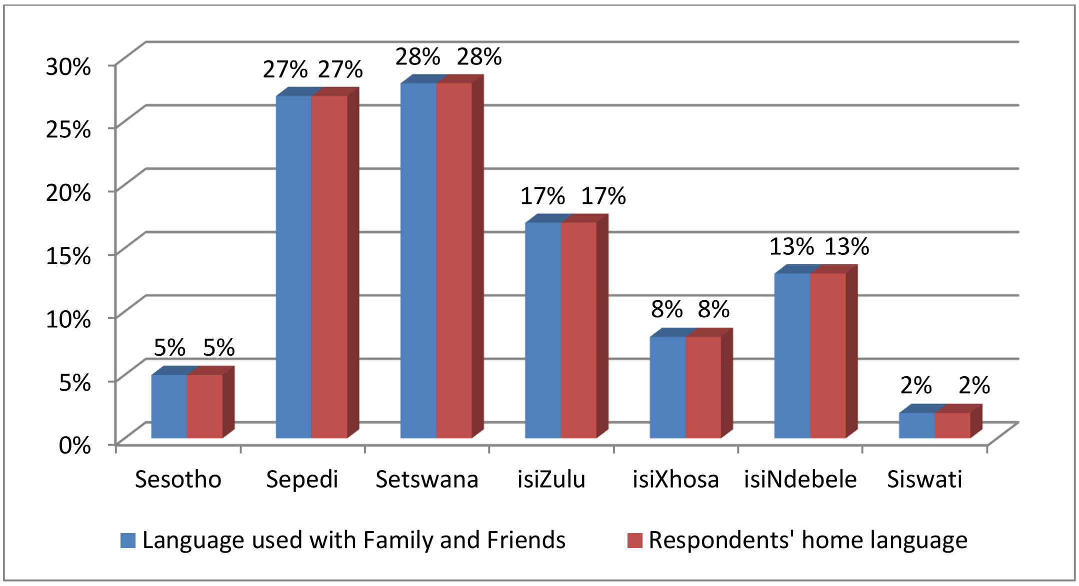


Figure 4.7: Home language and usage in social settings

Figure 4.7 shows that Setswana (28%) and Sepedi (27%) had the highest number of respondents regarding those as their home language and as a language used in interaction with family and friends. Languages like isiZulu (17%), isiNdebele (13%), isiXhosa (8%), Sesotho (5%) and Siswati (2%) showed the same reading when it came to the relations between home language and language used in family and friends settings. The above figure verifiably confirms that all respondents who indicated a particular language as their home language also indicated that they used the language in their interaction with their family and friends.

4.2.5 The use and level of understanding nutrition information labels in English

According to Figure 4.8 below, 90% of urban area respondents indicated that they used nutrition labels as compared to the 86% of the semi-urban area respondents who used nutrition labels. 10% of respondents from urban areas indicated that they did not use nutrition labels of food products and 14% of those from semi-urban areas did not use the nutrition labels on food products.

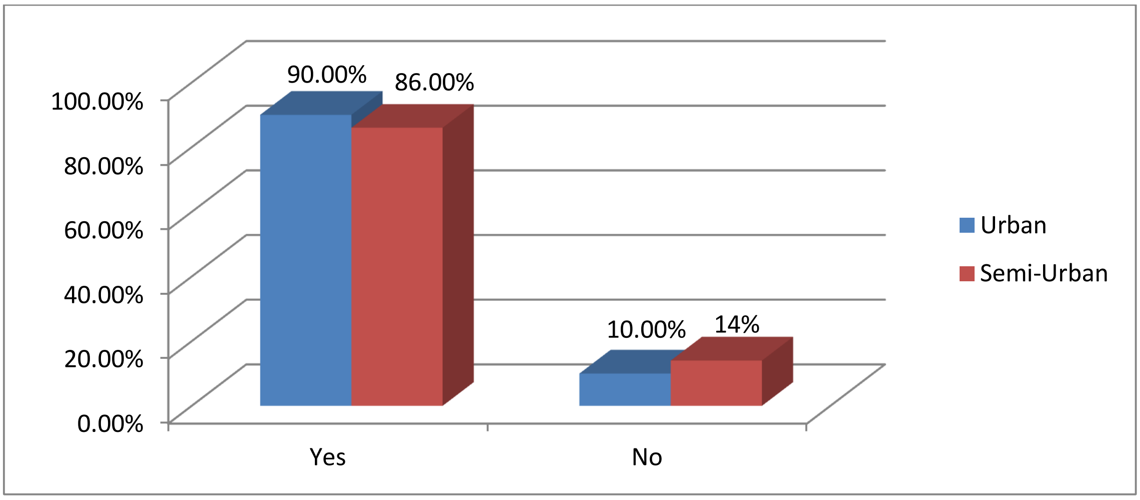


Figure 4.8: The use of nutrition information labels

Table 4.5 presents a tabulated version of the above graphically presented results. The table shows the total percentage of the respondents who indicated use of nutrition information labels as 88% and those who did not use such labels as 12%. The frequency in terms of the respondents is also presented in Table 4.5 below.

Table 4.5: Tabulated presentation of nutrition label usage

Variable 11: Use of nutrition labels			
	Frequency	**Percentage**	**Cumulative**
No	12	12.00	12.00
Yes	88	88.00	88.00
Total	100	100.00	

The presentation below in Figure 4.9 points out that 90% of urban respondents have an understanding of nutrition labelling language in English, with 10% indicating that they did not understand the scientific nature of the English used in nutrition labelling. The semi-urban area respondents indicated that 82% of those who responded to the survey did have an understanding of the scientific English language used on labels while 18% did not have a comprehension of the English language used. With the evidence above, it becomes imperative to look at the level of respondents' understanding and the reasons for the levels they reported. Figure 4.9 presents the graphically compiled results of the respondents' level of understanding, and Figure 4.10 shows the reasons for reported levels of understanding presented in Figure 4.9.

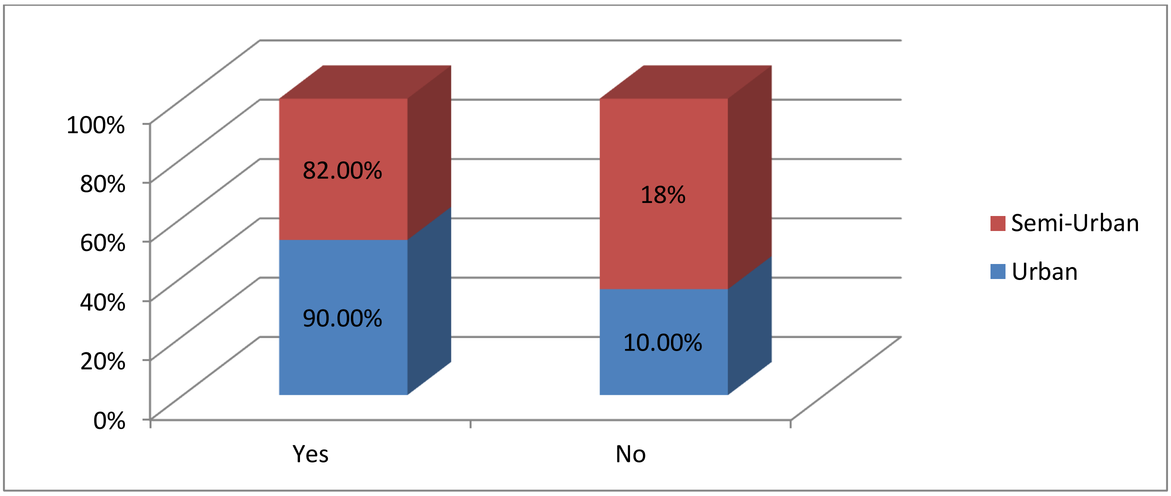


Figure 4.9: Frequency of use and understanding of nutrition information label language

Figure 4.10 below looks at the level of understanding of English used for nutrition labelling and compares both the units of analysis of the study to see if there is a significant relation between the two. The results of the figure below indicate that 72% of urban respondents indicated that they partly understood the language on nutrition information labels as compared to 92% of semi-urban area respondents who also pointed out that they partly understood the language of nutrition information labels.

The indication from the figure below further shows that 18% of those in semi-urban areas reported to mostly understand the nutrition information labels, and there were no respondents from the semi-urban areas who reported as mostly understanding the nutrition labels, recording a 0% for the variable. Furthermore, the figure shows that 10% of urban area respondents did not have an understanding of nutrition label language and the semi-urban area respondents recorded an 8% for the variable of not understanding the language used for nutrition labels.

The discussion presented above educated the researcher to seek reasons to record percentage scores from the respondents regarding their level of understanding of nutrition labelling language. Figure 4.10 below presents and discusses the reason why the respondents shared the views they did above.

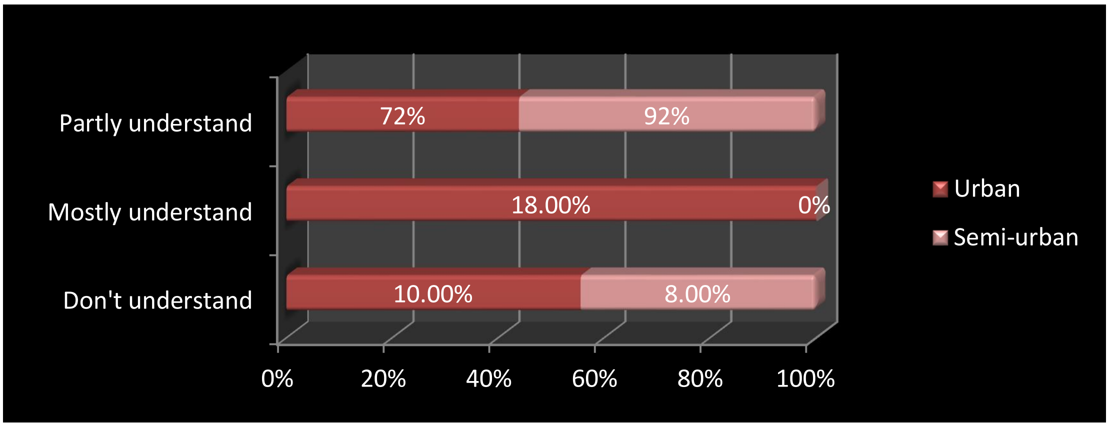


Figure 4.10: The level of understanding of nutrition label language

Figure 4.11 shows the reasons for respondents' responses as presented above in Figure 4.10. The figure illustrates that 19% of respondents claimed that the fact that English was used in nutrition information labelling was a barrier to them having high levels of understanding of nutrition information labels. On the other hand, 81.32% of the respondents indicated that the technicality of the English used in nutrition information labelling was the obstacle to their understanding the communication of nutrition information labels.

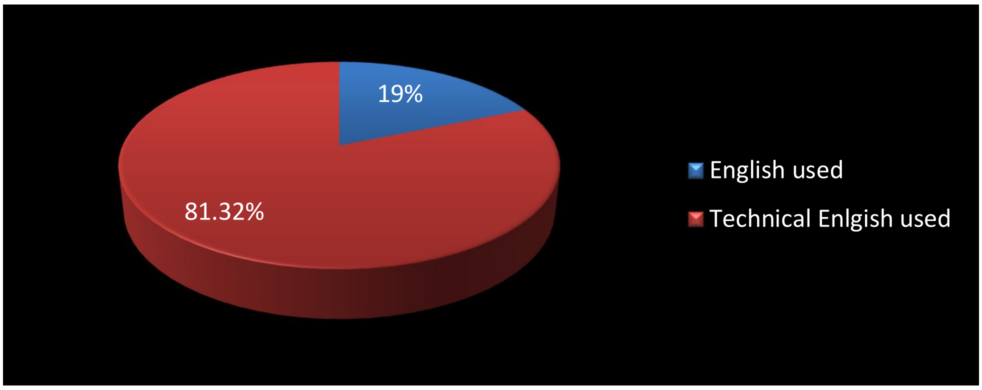


Figure 4.11: Reason for not or partly understanding nutrition information labels

The presentation in Figure 4.12 presents a comparative view of the following variables: The education level of respondents and the area where they come from with regard to the level of respondents' understanding. The research tries to establish if education and the area of the respondents have an impact on their level of understanding nutrition information labelling language that is mainly provided in English.

Figure 4.12 below presents the aim of the research regarding the relation between the above-mentioned variables. The figure indicates that of the respondents who did not understand nutrition information labels, only 3.77% had a post-secondary education and 14.89% had an education level of Grade 8–12. Ten per cent (10.00%) of the same respondents indicated that they lived in urban areas, while 8.00% reported to living in semi-urban areas.

The figure also shows that 72% of the respondents who indicated that they 'partly understand' nutrition information labels were from urban areas while 92% showed that they lived in semi-urban areas. On the one hand, 79.25% indicated having a 'post-secondary' level of education and on the other hand, 85% reported that they had an education level of 'Grade 8–12'. The results indicate that most of the semi-urban respondents only partly understand nutrition information labels. It also becomes evident that the majority of those who partly understand nutrition labels have an education level of Grade 8–12.

Furthermore, the figure indicates that with the respondents who reported to 'mostly understanding' nutrition information labels, 18.00% were from urban areas while none (0%) of the semi-urban area respondents indicated to 'mostly understanding' nutrition information labels'. The other indication from the figure shows that none of the respondents who mostly understood nutrition information labels had an education level of 'Grade 8–12, and 16.98% reported to having a post-secondary level of education. This shows that nutrition information labels are mostly understood by urban respondents with a higher education level.

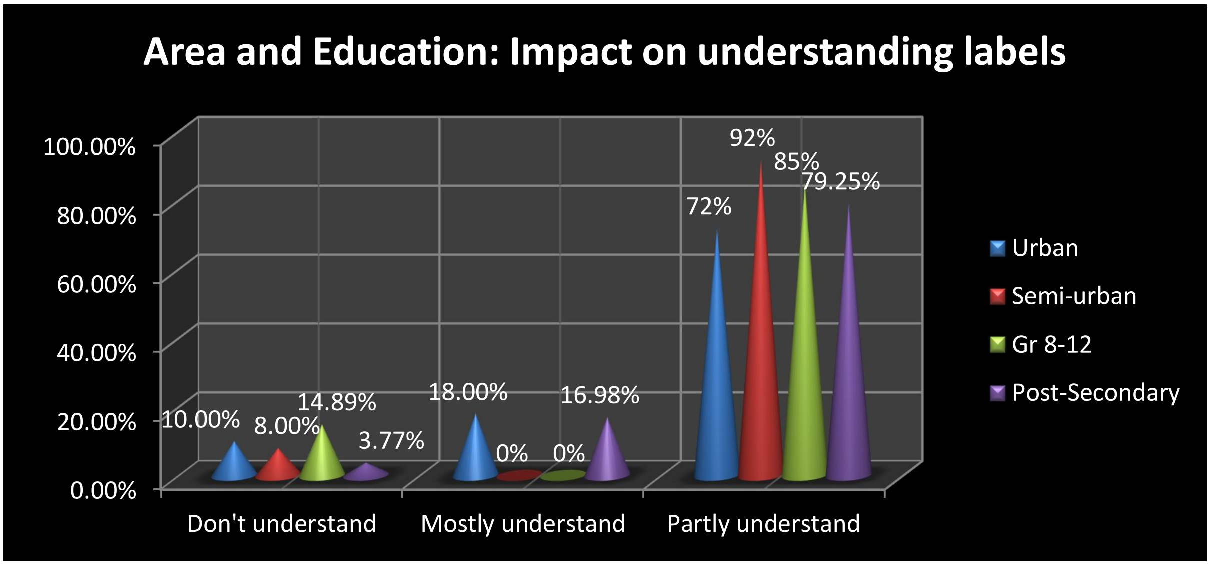


Figure 4.12: Relation between respondents' area and education on understanding nutrition information labels

4.2.6 Respondents' suggested measures to help with promoting nutrition information label usage

Figure 4.13 looks at the additional measures to the current monolingual nutrition information labelling in English that could help with the promotion and use of food nutrition labels as suggested by the respondents. The figure shows measures suggested by the respondents from semi-urban and urban communities as well as detailing the example measures and the degree of support for each.

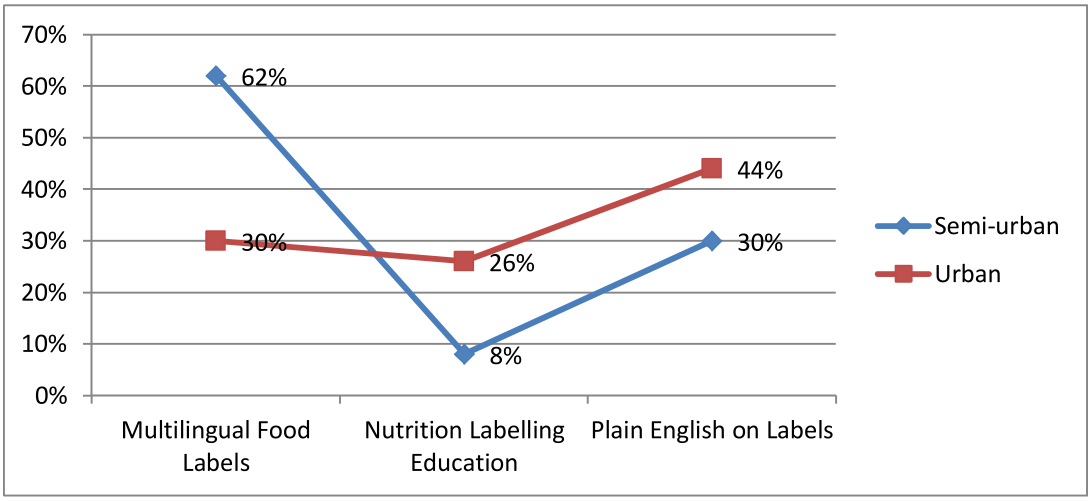


Figure 4.13: Measures to promote nutrition information label usage

Figure 4.13 shows that 62% of semi-urban respondents suggested multilingual nutrition information labels as the measure that could promote nutrition information label usage, and 30% of the respondents in urban area suggested the same. Nutrition labelling education was supported as a possible measure by 8% of semi-urban urban respondents and by 26% of urban area respondents. Those from urban areas advocating for plain English on labels recorded 44% and 30% was recorded by semi-urban area inhabitants.

4.3 PHASE 2: INTERVIEWS (Qualitative analysis and interpretation)

The employ of the questionnaire in Phase 1 of the research sought, among others, to determine consumers' use and understanding of nutrition information labels and their take on the introduction of multilingual nutrition information labels. The semi-structured interviews aimed at:

- Determining a professional opinion regarding the health status of South Africans;
- Investigating the impact of language on the usage or non-usage of nutrition information labels by consumers in South Africa;
- Determining other factors affecting consumers with regard to nutrition information labels.

The interview transcripts are included as an attachment to the study (see Appendix B). The researcher did not do any editing of the transcripts even in cases where respondents incorrectly used grammar and where there was poor sentence construction. Thus the researcher preserved and presented the original character of the respondents' comments.

The presentation of the themes and categories emerging from the transcripted raw data is set, interpreted and analysed as follows. In order to facilitate cross-referencing, Table 3.1 on page 54 is repeated as Table 4.6. Table 4.6 reflects the themes, categories and sub-categories that will be discussed.

Table 4.6: Summary of themes, categories and sub-categories

Themes	Categories and sub-categories
1. General health status of ordinary South Africans	1.1 Adoption of Westernised diet and way of life which leads to overweight for most consumers 1.2 The escalation of communicable and chronic diseases in South Africa
2. The education level of consumers of food products	2.1 The quality and standard of education act as a barrier for consumers to work out arithmetic and measurements involved when interpreting labels 2.2 Negative attitude towards labels because of illiteracy and lack of knowledge from those literate
3. Exclusive use of English in nutrition information labelling industries	3.1 The acknowledgement of English as the primary language for nutrition information labelling in South Africa 3.2 Lack of English proficiency and understanding as a disadvantage in consumers using nutrition information labels
4. Socio-economic setting of consumers/patients	4.1 The influence of economics on the time available for shopping which influence the food choices 4.2 The value of money consumers have to make food choices and the areas available to them for purchasing food
5. The development of South African indigenous languages	5.1 The need to develop indigenous languages' terminology for use in nutrition information labels

4.3.1 Theme 1: General health status of ordinary South Africans

The researcher aimed at determining respondents' views regarding the overall health position of South Africans.

4.3.1.1 Category 1.1: Adoption of Westernised diet and a way of life which leads to weight concerns for most consumers

All the interviewees (100%) acknowledged that South Africans' health status was poor and pointed to the negative impact brought by a change of lifestyle to a more Westernised way of living. The respondents pointed out that the sprouting of fast food and easy-to-cook options available to consumers did little to promote good health; instead, it worsened the situation of ill-health. Another point raised by the respondents was the ignorance and the 'I don't care' attitude showed by most consumers when it comes to lifestyle and food choice. They stated that even those who know better when it comes to healthy food options don't necessarily make better decisions and others don't bother themselves with nutrition information labels at all. The respondents' quotes regarding category 1.1 were recorded and summarised as follows:

Very unhealthy, a lot of South Africans have adopted a Westernised diet which is high in refined carbohydrates, higher protein intake and lower in complex carbohydrates like fibres

. . . the general trend right now in South Africa is more overweight, so they don't have, they are not in a good standing with their health in a way because there is over- and underweight . . . mostly us as South Africans we are becoming more Westernised

According to me it I think it is not good, it is not good as . . . that malnutrition is another leading cause of death

The issue of unhealthy living is a world phenomenon. Discussions in Chapter 1 (1.2) help support the point by stating that more than half of the world's population is overweight (Leal, 2010:02). Respondents indicated that a holistic approach to health was a necessity if all were to benefit. They suggested that improving the health status of the majority requires multiple factors to operate in unison; that includes, but is not limited to, education, economics, language, awareness and access to matters dealing with nutrition information labels and healthy food choices.

A reported tendency of consumers' willingness to adopt a Westernised diet and lifestyle is seen as a catalyst for the overweight and unhealthy status of the majority of South Africans. Sub-category 1.1 below provides views on some of the consequences of lifestyle and dietary behaviours of consumers.

4.3.1.2 Sub-category1.1: The escalation of communicable and chronic diseases in South Africa

A common view from all respondents (100%) is that the adoption of a Westernised lifestyle has a negative impact on the long-term health status of consumers. The respondents pointed out that the Westernised lifestyle brought a number of fatal communicable and chronic diseases. They pointed out that obesity and under-nutrition were the main problems in South Africa and that they contributed immensely to the scourge of diseases. WHO (2013:02-03) points out that the common presence of under-nutrition and obesity existing side by side within the country, the same community and the same household leads to a double burden of diseases. Some of the views expressed by the respondents are as follows:

> *. . . most people are malnourished, they are very very underweight and it can be caused by communicable diseases. . .*

> *. . . more obese and more exposed to these other chronic diseases of lifestyle, more of the diabetes that we are seeing, hypertension that we are seeing . . .*

> *People have moved from drinking water to drinking cool drinks and we have a very high diabetic rise in patients cause I see a lot of diabetes and a lot of hypertension*

The choice of food directly impacts on the health status of purchasers and the point is supported under the discussions in Chapter 1 (1.2) of the study that over the last several years, there has been an increase of several chronic diseases that are linked to dietary and lifestyle factors (Drichoutis, Lazaridis & Nayga, 2006:02). The point indicates that the education of purchasers needs to be taken up more seriously in order for change if dietary and lifestyle behaviours are to be for the better and result in improving the lives of people. This put the next theme in context and it will be discussed below.

4.3.2 Theme 2: The education level of South African consumers

Theme 2 looked at the respondents' comments regarding the impact education has on the health status of South Africans. The research aimed at ascertaining whether there are other factors related to education that also have an impact on the consumers' choice of food and use of labels. The theme and its category are reflected below.

4.3.2.1 Category 2.1: The quality, level and standard of education of South Africans

With regard to education in South Africa, the respondents felt that the education status in general compromised the ability of consumers to make good and healthy food choices. Sixty-six percent (66.6%) focused on the quality, standard and level of education that is offered in the country, while 33.3% took a view of people being educated in interpreting nutrition information labels.

The respondents are of the opinion that literacy on its own does not guarantee knowledge and correct interpretation of nutrition information labels. All the respondents stated the barrier issue of language when it comes to education and the results on people using the labels in a language that is not their preferred or effective one. The other argument picked up from the respondents' comments is that not all South Africans had an opportunity to attain an educational qualification and there are those who did not get educated to a level where they could be in a position to use labels that are provided mainly in English. Selected respondents' comments regarding category 2.1 are quoted as follows:

> *. . . before they are educated in using them, they don't use them . . .the other thing to think about is the educational level of people, that something beyond the labelling control*

> *. . . more than a quarter of people are illiterate in South Africa*

> *Instill this mentality of reading to encourage people not to just take everything but to read whatever before taking it so that mentality is also needed and unfortunately with such pass rate of 30% in our matrics, I don't know*

The discussions above appear to support that the ability to understand and utilise a language does not make people able to understand labels owing to the calculations involved. Though the consensus from the respondents was that education is key to people understanding and using labels, they made it clear that there are internal and external educational factors at play as well. Some suggested that nutrition and health should be offered as a learning area at schools in an attempt to educate people about health and healthy lifestyles. Due to the respondents' concern over the ability of consumers to use and understand mathematical presentations, the following sub-category (2.1) was included in the interpretation and analysis.

The general consensus emanating from category 2.1 is that education is a key concept when it comes to people using nutrition information labels with understanding. With that being the case, the quality, level and standard of education also became a point raised by respondents as one that required attention in an attempt to aid consumers use nutrition information labels.

4.3.2.2 Sub-category 2.1: The ability to use arithmetic when interpreting nutrition labels

Sixty-six percent (66%) of the respondents raised red flags when it came to the interpretation of labels. Their concern went beyond the consumers' ability to understand language in general, whether English or indigenous languages, but their ability in comprehending arithmetic concepts and successful measurement of grams, kilograms and millimetres that most of the labels use. Their concern was based on the fact that the quality, level and standard discussed in category 2 influence the sub-category 2.1. They make the point that even the educated and literate struggle when it comes to making food decisions using calculations that labels are presented with. They call for education systems that will allow each individual to have sufficient understanding of a range of mathematical concepts and to be able to know how and when to use them. The following are some of the quotes from the respondents:

> *. . . it is just that they use some calculations, they use arithmetic and the patients don't understand how much is four hundred per 16 grams, they don't even understand*

> *So if someone comes and says the fat content in this is, let's say in this 100g you will find 3g of fat, what does that mean to a lay person?*

The acquisition of an everyday language is critical for the development of people, but there are instances where that acquisition on its own is inadequate to meet the challenges and functions of everyday life. Some of the functions include measurements and calculations as observed from the respondents' comments. Thus there is a need to gain mathematical literacy in order to successfully meet some of the other expectations. The Department of Education (2003:09) is of the view that mathematical literacy provides awareness and understanding of the role that mathematics plays in the modern world and it is driven by life-related applications of mathematics. It enables to develop the ability and confidence to think numerically and spatially in order to interpret and critically analyse everyday situations and to solve problems.

The respondents agreed that education and language cannot be seen as the only factors that act as barriers to consumers' usage of nutrition information labels. They made the point that arithmetic within the education learning area has a bigger role in consumers using nutrition information labels with understanding.

4.3.3 Theme 3: Exclusive use of English in the nutrition information labelling industries

The researcher aimed at determining respondents' views regarding the superseding use of English and the disregard of the other languages in the nutrition information labelling industries.

4.3.3.1 Category 3.1: The acknowledgement of English as the primary language for nutrition information labelling in South Africa

All (100%) of the respondents appear to support that nutrition information labelling in South Africa is primarily provided in English. They also suggest that they did not comprehend the logic behind having foreign languages on the nutrition information label products destined for South African consumption. An overwhelming negative reaction from 100% of the respondents regarding the practice of having English as the main language in the nutrition information labelling industry in South Africa was noted. Their argument centred on the fact that the majority of South Africans are not first-language speakers of the English language; as a result, the decision to have English on nutrition information labels compromised usage and comprehension of the nutrition information labels.

The researcher presents some of the respondents' views regarding category 3.1 as follows:

> *There are some labels that do give indigenous languages but they are limited and it's indigenous, meaning indigenous to where it came from. So you don't find things in South Africa that are written in South African indigenous languages on the label. So you find that a product from France will have a French on and German on and what what . . . like on your chocolates and, noodles do have nothing, it's just English.*

> *Most of the time the language that is used I think 99% is English*

> *Firstly the labelling is done in English in most cases . . . So with regard to the language, it is done mainly in English*

The respondents' views regarding English being used in isolation from other languages in South Africa is indicated under the discussion in 2.4.1 where it is pointed out that English currently occupies the *de jure* status of national and international language of commerce and industry. The imbalance is that according to Census (2011:04), English is spoken by 9.6% of the population as a home language and the majority languages are not awarded the same respect in terms of usage.

The summation of category 3.1 brings forth the consensus that English is used primarily as the language that communicates nutrition information labels information in a country where the majority of citizens are not first-language speakers of the language. The decision is viewed as compromising label usage and understanding among consumers.

4.3.3.2 Category 3.2: Lack of English proficiency and understanding as disadvantage in consumers using nutrition information labels

All the respondents (100%) indicated that the lack of a proficiency in English acts as a barrier to people using and understanding nutrition information labels. Sixty-six percent (66.6%) of the respondents stated that to better the health status of non-English speaking consumers who are hindered by language, there is a need to remove such linguistic obstacles that prevent consumers accessing the information they need and enhancing the communication of food messages. Thirty-three (33.3%) were of the view that consumers are ignorant when it comes to nutrition information labels and the use of English cannot be the only reason people do not put nutrition information labels to use. Some of the respondents' views were:

People are very ignorant about food labelling . . .

They don't know English and they can't even read the food labels.

. . . when you look at the data of how many are illiterate I'm not sure if it is the 2010 or 2011 census

As indicated (2.8), language barriers have a demonstrable negative impact on access, quality and sometimes on the cost of the information that provide health messages to consumers. Language barriers and inaccessibility are associated with poor quality of health owing to the non-existence of the health information in a language known and sometimes preferred by consumers. Furthermore, in Chapter 2 (2.8) it is stated that Lobstein, Landon and Lincoln (2007:35) are of the view that clear and simple nutrition labelling, in a consumer's language regardless whether it is their home language or a language preferred by consumers, should be a consumer's right, not an optional extra. The influence of language also has an impact on the economics of a society and value which individuals earn and that impacts the food choices they make. This leads the research in the direction of the following theme – theme 4.

Views in category 3.2 indicate that consumers' lack of proficiency in English acts as a barrier to accessing nutrition information label massages, therefore negatively impacting on the consumers' usage of nutrition information labels provided primarily in English.

4.3.4 Theme 4: Socio-economic setting of consumer/patients

The researcher seeks to find the views of respondents regarding the influence of economics when it comes to consumers' behaviour and preferences when purchasing food products.

4.3.4.1 Category 4.1: The influence of economics on the time available for purchasing and preparing food

All (100%) of the respondents elucidated that consumers' backgrounds and sometimes their level of education determined their attitude to money and towards indigenous South African languages. The respondents' view is that consumers' financial situation impacted on the way they did their shopping in terms of the time and kind of food they purchased. They indicated that finances also influenced the kind of retailers consumers use and that, in turn, had an influence on the quality of products purchased.

The other view brought forth by the respondents (100%) was that most of their patients consider healthy foods as being expensive, and according to the respondents' professional opinion, not all healthy foods are expensive. Some specified that certain retailers rewarded points to consumers who purchased healthy food options in a quest to promote and encourage consumers to eat and live healthy. The following are some quotes from the respondents' views regarding category 4:

> *if you don't have the money, you have to work more and when you work more you neglect house duties more and something has to give and there are always something quicker to use and very easy for you to do*

> *. . . mostly they are on grants, they tell you that they don't have sufficient money to buy food*

> *. . . people have this mentality that healthy food choices are expensive yet when you check they are not*

All (100%) of the respondents were of the opinion that those with no access or very little access to finances tend to be unhealthy as compared to the consumers who are inclined financially. The view is supported under the discussions in 2.4

where it stated that in many countries people who are worst off as far as their socio-economic position is concerned, are also worst off when it comes to their health. Figure 2.2 under the discussions in 2.4 varifiably indicates the relation between health and income by looking at a life-course perspective and other factors that influence health and income of consumers.

In summary, consumers' finances play a pivotal role in the kind of food consumers purchase, the retailers they purchase from as well as the time available for shopping. There was evidence to support that finances influence the health of consumers, either positively or negatively.

4.3.5 Theme 5: Development of South African indigenous languages

The aim of the researcher is to determine the views of the respondents regarding the need to develop indigenous languages for use in the nutrition information label industry. The growth of a language involves the creation of new terminology equivalents for the English working concepts in order to go on par with scientific, technical and educational expectations.

4.3.5.1 Category 5.1: The need to develop indigenous languages' terminology for use in nutrition information labels

All the respondents (100%) were in favour of the idea of developing indigenous South African languages for the use in the nutrition information labelling industry. They proposed the development of appropriate terminological concepts and lexicographical advancement regarding those languages as the foundation to developing the languages for use in the nutrition information labelling industry. The respondents suggested the use of translation as a means of transferring information from one source language to the target language; in this case, it will be from English to other indigenous languages. Some of the respondents' positive views regarding the development of indigenous languages were as follows:

> *. . . we could copycat like we are copycatting now with the Westernised diet, copycat by translating the language from English to at least three or four other languages that are indigenous in South Africa; that could help*

. . . we do need people to help have our food dictionary in our indigenous languages.

. . . we need terminology, appropriate terminology . . .

The impression gained from the interviews is that the respondents were aware of the lack of indigenous language terminology equivalents for the working English concepts in the nutrition information labelling industries, and showed insight into the ways for developing those languages. The researcher makes the assertion that for the development of African languages, the languages need to be used in higher and technical environments, as providing terminological equivalents without putting those to use will not be the answer to development.

4.4 CONCLUSION

The chapter follows the justification of the study's methodologies discussed in Chapter 3 and presents detailed results, analysis and interpretation of the data collected using the justified methodologies. Data from both the questionnaire and interviews is presented in this Chapter. The presentation of the discussions is themed according to phases. Firstly, the study deals with the questionnaire themed part and secondly it analyses the interview part of the research. Tables and graphs are put to use in the chapter to aid with analysis and interpretation and for ease of cross-referencing.

CHAPTER 5

FINDINGS AND CONTEXTUALISATION OF RESULTS

5.1 INTRODUCTION

The aim of this chapter is to consolidate and compare the findings derived from data collected by putting into use the chosen data collection methods with the main aim of establishing validity. The outcomes of the thematic trends that emerged from the qualitative and quantitative collected data were compared to ascertain similarities and differences. The process enhanced the trustworthiness of the results of the study.

The research aimed at surveying and interviewing the sampled population who are users and speakers of any of the seven languages chosen for the current research. The respondents involved in both the survey and interview are from differing communities. The one group was from a semi-urban community/area and the other from an urban community/area. The reason for the decision is that the researcher anticipated differences in the way the two groups viewed nutrition labelling and their use of the labels, as well as their understanding of the English language used for labelling food products.

The research findings will be outlined in line with the themes that emerged from the questionnaire and interview transcripts as presented in the previous chapter.

5.2 BIOGRAPHICAL AND DEMOGRAPHIC INFORMATION

The survey questionnaire revealed that 69% of the respondents were females and 31% males. The results allowed the researcher to make the assumption that more females are responsible for doing shopping, thus they are responsible for the kind of food eaten in their homes. All the respondents were black African and spoke at least one of the seven languages chosen for the current study, because the researcher emphasised from the onset that only speakers/users of the languages chosen will form part of the research during data collection. Questionnaires (100) were distributed to respondents from the two communities/areas of interest (urban and semi-urban), with each community/area having 50 sampled respondents.

5.3 SOCIO-ECONOMIC STATUS OF THE RESPONDENTS

The two differing backgrounds of the respondents made the socio-economic status variable central because it allowed the researcher an opportunity to use collected data to determine whether economics and area played a role in the usage and understanding of nutrition information labels in English.

5.3.1 Results of the questionnaire survey

This part of the questionnaire survey report is presented in terms of the communities/areas of interest and a summary presentation of the general relation between the main and other variables.

5.3.1.1 Urban community/area respondents survey results

The results revealed that there were noticeable differences in terms of urban respondents' per annum income. The noted differences are reported as follows:

- Respondents earning between R10 000 and R99 000: 8%;
- Respondents earning between R100 000 and R199 000: 46%;
- Respondents earning R200 000+: 46%.

5.3.1.2 Semi-urban community/area respondents survey results

The survey revealed that there were significant differences regarding per annum income of respondents. The noted differences are:

- Respondents earning between R10 000 and R99 000: 30%;
- Respondents earning between R100 000 and R199 000: 60%;
- Respondents earning R200 000+: 10%.

From the above reported results, the researcher was able to make the assumption that the majority of urban community respondents had better financial resources which could help in food choices and, to some extent, in food nutrition label languages and understanding; thus, contributing to healthier lives as compared to those who are from semi-urban areas. The researcher's assumption is based on Kawachi and Kennedy's (1999:215) statement that the relationship between income and health is well established; the higher an individual's income, the better his or her health.

To put this assumption to test, the researcher looked at both the income level and usage of nutrition information labels as well as comparing income with understanding of nutrition labelling language. The supporting reason is that Medrano, Rodriguez and Villa (2008:612) stated that low-income households have less education and are probably less healthy than wealthier ones. The view is interpreted by the researcher as that respondents from semi-urban communities will earn less than the ones from urban communities and as a result, the two units' understanding of nutrition information labelling language (English) and usage will not be the same.

The results of the comparison between income and usage of nutrition information labels showed that the majority of respondents across the different income levels used nutrition information labels. As was to be expected, based on the evidence provided above, 96.43% of respondents who had an income level of R200 000+ used nutrition information labels. Figure 4.3 indicates that a similar percentage of respondents with an income level of R200 000+ understood the English language used in nutrition labelling.

5.3.2 Results of the semi-structured interviews

All the interviewees were vocal about the relation between patients'/consumers' socio-economic setting and their preference, usage and understanding of nutrition information labels when purchasing food products. The interviewees indicated that finances influenced the kind of retailers consumers used and that in turn, had an impact on the quality of products purchased. Consideration of healthy food being expensive was also noted from the interviewees' views regarding the relation between economics and health. One of the interviewees expressed their views regarding economics and health as follows (repeated here):

> *"If you don't have money, you have to work more and when you work more you neglect house duties more and something has to give and there are always something quicker to use and very easy for you to do".*

The interviewees were vocal regarding the issue of economics, as some stated that their patients are not earning enough to enable them to make healthy food choices.

5.3.3 Finding

All of the study's respondents had differing levels of income which, according to the researcher, enabled them to make food choices, regardless of good or bad. The study revealed that respondents who had a better annual income claimed to make better use of nutrition information labels as compared to the majority of those with a lesser annual income.

The researcher attributes this revelation to the health and education relations, where it is proven in Chapter 2 that most people with a better income will have a better education level and they are more likely to make better use of their resources when having to use nutrition information labels in making healthy food choices. The study makes the assertion that economic status affects consumers' food choice, and that has an impact on their health status.

5.4 RESPONDENTS' EDUCATION LEVEL AND ITS IMPACT ON HEALTH

5.4.1 Results of the questionnaire survey

5.4.1.1 Urban community/area respondents survey results

The results revealed that an 84.00% majority of urban community/area respondents had a post-secondary level of education, thus leaving a 16.00% minority of urban community/area respondents with an education level between Grade 8 and Grade 12.

5.4.1.2 Semi-urban community/area respondents survey results

On the other hand, the study results indicated that for semi-urban community/area respondents, a 78.00% majority indicated that they have an education level between Grade 8 and Grade 12, while a 22.00% minority stated that they had a post-secondary level of education.

The set results of both units analysed for the study allows the researcher to make the assumption that most respondents in urban communities/areas will have a better health status as their education level is greater. The assumption is based on the statement in Chapter 2 (2.5.3), repeated here: Education is a key element of sustainable development and is perhaps one of the most important underlying determinants of health at both individual and community levels.

5.4.2 Results of the semi-structured interviews

All interviewees agreed that education level affected nutrition label usage and understanding on the consumers' part. The respondents challenged the quality of education in South Africa and claimed that it compromised the ability of consumers to make use of available tools in making good and healthy food choices.

The interviewees touched on the issue of the language (English) used for education and nutrition information labelling purposes. They also made a point regarding arithmetic used for labels and the fact that the education system lacks in terms of mathematical literacy, thus preventing consumers to use such labels. A statement from one of the interviewees was recorded as follows (repeated here):

> *. . . it is just that they use some calculations, they use arithmetic and the patients don't understand how much is four hundred per 16 grams, they don't even understand.*

The above outlook regarding arithmetic indicates that the ability to use a language does not necessarily make people able to understand labels, though it helps. There are indeed calculations which need to be taken into consideration when dealing with nutrition information labels.

5.4.3 Finding

As the literature revealed in Chapter 2, there is a large and persistent association between education and health, the results of this study are indeed in support of this revelation. The study found that the respondents' concern was based mainly on the quality of education in South Africa, which directly impacted on consumers' use and understanding of nutrition information labels. Furthermore, the National

Sociolinguistics Survey (PanSALB, 2000:55) reports that less educated people are more inclined to feel frustrated or resentful when they can't use their home language at work and/or in the public sector.

The researcher further made the observation that the respondents with a higher education level had improved frequency of usage and that of understanding the communication of nutrition information labels. In conclusion, the study states that education level and health have a strong relation, as education impact on consumers' use and understanding of nutrition information labels.

5.5 ATTITUDE TOWARDS RESPONDENTS' HOME LANGUAGE DEVELOPMENT

In South Africa, most official languages are used and spoken formally and informally to a greater or lesser extent in social settings. It is in the commerce and industrial sectors that English remains the dominant language used. As stated in Chapters 1 and 2, the research population were speakers and users of one of the seven languages chosen for the study.

5.5.1 Results of the questionnaire survey

5.5.1.1 Urban community/area respondents survey results

An overwhelming 100% of the urban community/area respondents were in favour of their home language being developed for business usage.

5.5.1.2 Semi-urban community/area respondents survey results

Regarding the semi-urban community/area respondents, 98% stated that they were in support of their home languages being developed for business usage. Generally, the research results further revealed that all respondents who indicated a particular language as their home language also utilised the same language in interaction with family and friends. The researcher further combined the semi-urban and urban communities/areas percentages in terms of attitude towards home language development, and the study revealed that 98% of respondents supported the development while 2% were not in favour of home language development. Figure 4.6 in Chapter 4 shows the distribution of languages used with family and friends, and according to the study results, home languages used were reported as follows (repeated here):

Setswana 28%

Sepedi 27%

isiZulu 17%

isiNdebele 13%

isiXhosa 8%

Sesotho 5%

Siswati 2%

The results show that the Nguni language grouping had 40% of respondents indicating one of the Nguni languages as a home language in the study, and the Sotho language grouping had 60% of respondents indicating one of its grouped languages as a home language.

5.5.2 Results of the semi-structured interviews

All interviewees showed total support for the development of indigenous languages for use in nutrition information labelling. They made concessions that for indigenous languages to be used on labels there is a need to develop terminology regarding the food industry, as there is currently a lack of available terminology lists in indigenous languages. They indicated that after the development of the food terminology, the process of translation from English to other languages can be undertaken. One comment from the semi-structured interviewee was as follows (repeated here):

> *. . . we could copycat like we are copycatting now with the Westernised diet, copycat by translating the language from English to at least three or four other languages that are indigenous in South Africa; that could help*

5.5.3 Finding

The general response from both the questionnaire survey and the interview respondents to the concept of developing indigenous languages for use in the nutrition information labelling industries reveals that in the main, respondents are favourably disposed towards the idea.

The questionnaire survey results reveals that 99% (combined percentage of semi-urban and urban) of respondents are in favour of the idea of developing indigenous languages for use in the nutrition information labelling industry, while 1% (combined percentage of semi-urban and urban) of respondents are against the idea. In direct support of the stated idea, the responses obtained in the semi-structured interviews are overwhelmingly positive to the idea (as revealed in Chapter 4).

The study also makes the finding that most respondents who were in favour of the development of indigenous languages, regarded one of the seven languages chosen for the purpose of study as a home language and also used their home language in interaction with family and friends. This indicates that it is no surprise that the respondents would support the use of indigenous languages in commerce and manufacturing industries, specifically in the nutrition information labelling industry.

5.6 THE USE AND LEVEL OF UNDERSTANDING OF NUTRITION INFORMATION LABELS IN ENGLISH

According to the National Sociolinguist Survey (PanSALB, 2000:187), proficiency in English seldom exceeds 30% among speakers of indigenous African languages. The researcher took the PanSALB Survey into consideration and looked at how this state of affairs relating to language impacted on the consumers when using labels provided in English. The researcher looks at multiple factors that influence usage or non-usage of nutrition information labels, including the level of understanding, general usage and non-usage of labels and the recorded reason for the level of understanding as expressed by the respondents (for ease of referencing, Figure 4.10 is repeated below as Figure 5.1).

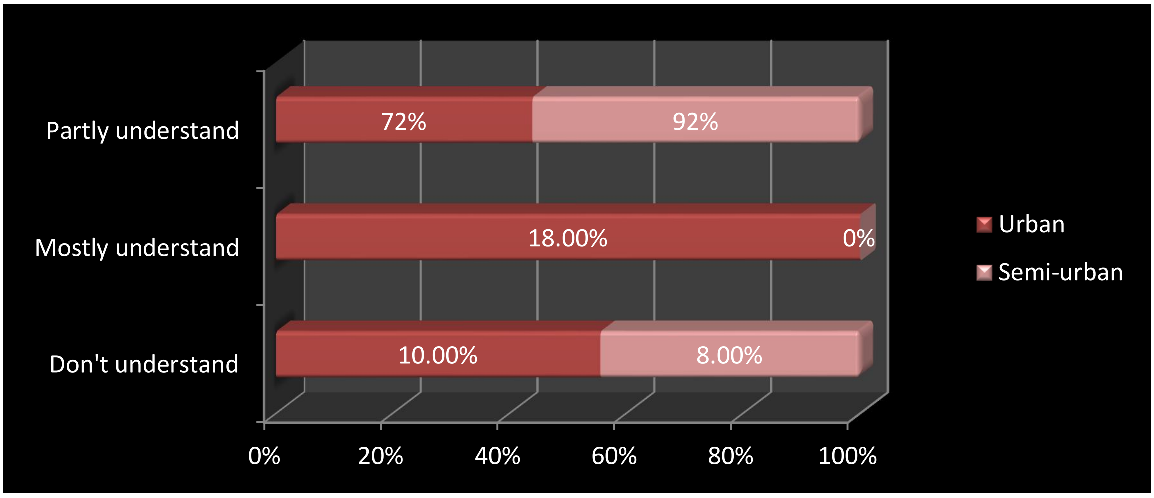


Figure 5.1: The level of understanding of nutrition label language

5.6.1 Results of the questionnaire survey

5.6.1.1 Semi-urban and urban community/area respondents survey results

The general view from the majority of respondents from both units analysed was that they understood nutrition labelling information. There were a few (10.00% from urban and 8.00% from semi-urban areas) respondents who stated that they "did not understand" the information on nutrition information labels. In view of the fact that respondents indicated differing views regarding their understanding of nutrition labelling information, the researcher analysed the respondents' level of understanding regarding the language used to communicate food nutrition information.

Respondents from both urban (72%) and semi-urban (92%) communities/areas indicated that they "partly understood" the language used in nutrition labelling. The respondents who indicated that they "did not understand" made up 9% for the two units analysed. 18% of the urban respondents had the "mostly understand" level marked whereas 0% was indicated by semi-urban community/area respondents. This revelation allowed the researcher to make the postulation that 88% of respondents did not fully comprehend the intended messages on nutrition information labels, which is in line with the results of the sociolinguistic survey of 2000 which revealed that proficiency in English seldom exceeds 30% among speakers of indigenous African languages.

As a result, the researcher looked for additional facts in the study to support the above assumption. The study reveals details regarding the respondents' level of "not understanding" or "partly understanding" messages on nutrition information labels below.

Of the respondents stating that they "do not understand" or "partly understand", 81% indicated that the technicality of the English used in nutrition information labelling acted as the main obstacle in their accessing and understanding the communication on nutrition information labels. The other section, which is 19% of the respondents, claimed that the fact that English was used in nutrition information labelling was a barrier to them having better levels of understanding messages communicated on nutrition information labels. English and the technical English used on nutrition information labels was reported by the respondents as being a barrier to accessing nutrition information labelling information when this is written mainly in English, which allowed the researcher to check the education level against their level of understanding nutrition information labels in English.

Figure 4.10 (repeated above as Figure 5.1 for ease of reference) in Chapter 4 indicated the following statistics regarding education level and level of understanding nutrition information labelling messages:
Respondents having a post-secondary education level:

- Partly understand: 79.25%
- Mostly understand: 16.98%
- Do not understand: 3.77%

Respondents having an education level between Grade 8 and Grade 12:

- Partly understand: 85%
- Mostly understand: 0%
- Do not understand: 14.89%

The results as per Figure 4.10 indicate that the education level of respondents plays a role in the level of respondents' understanding of nutrition information labelling communication provided in English. The respondents with a post-secondary education level showed that they "partly understood" or "mostly understood" nutrition information labelling messages. The ones with an education level between Grade 8 and Grade 12 indicated that they "partly understood" or "do not understand" the messages on nutrition information labels used to communicate nutrition information.

5.6.2 Finding

One of the findings coming from this themed part of the study is that most respondents, from both urban and semi-urban communities/areas, claimed to understand nutrition labelling information. The level of the respondents' understanding became a key factor that the researcher took an interest in, as that would determine their accuracy when comprehending the health messages on food products.

The study made the finding that most respondents indicated to 'partly understand' the language used to communicate health messages on food products. The finding directed the researcher to make the conclusion that the respondents' level of understanding of health messages is not adequate to allow them to confidently and correctly make use of the nutrition labels provided in English, and their understanding is worsened by the technical English used on labels as well.

The issue of the technicality of the English used on nutrition information labels was found to be another main obstacle for consumers to use nutrition information labels correctly, as it limited their interpretation and level of understanding of the messages aimed to be communicated to them. The concern regarding consumers' level of understanding and usage of nutrition information labels is impacted by numerous independent factors such as the consumers' level of education, economic background and the community/area where they came from.

5.7 RESPONDENTS' SUGGESTED MEASURES TO PROMOTE NUTRITION INFORMATION LABEL USAGE

The imposition by food manufacturing companies to use mainly English in their communication on nutrition information labels to a consumer whose English is not their first language and to some consumers whose comprehension of the English language is a challenge, led to the study trying to source measures that could aid the consumer in making better use of messages meant for their benefit.

5.7.1 Results of the questionnaire survey

An overall 92% of respondents indicated that multilingual nutrition information labels can be one of the measures used to aid in nutrition information label usage. In Chapter 2 (2.10), the researcher stated the following: "A multilingual nutrition label can be better equipped to communicate health messages, to disseminate health information and to allow sharing and usage of health information in an equitable manner".

As previously stated in Chapter 2 (see p. 24), education plays a role in health matters. As a result, there are some respondents who advocated for nutrition labelling education to a measure that promotes labelling usage. The other measure suggested by the study's respondents was the introduction and use of plain English on nutrition information labels and getting rid of the technical language currently used in the communication between manufacturers and the clients.

5.7.2 Finding

The study revealed that most respondents preferred multilingual nutrition labelling as a way of getting rid of linguistic barriers concerning nutrition information labels. There were also two other smaller sections of the respondents who advocated for plain English on nutrition information labels and for nutrition labelling education respectively.

The researcher suggests that most respondents in South Africa are aware that nutrition information labels are not addressing the health issue adequately, as most indicated a need to change the way things are currently done with regard to nutrition information labelling, specifically the language used for labelling food. The respondents further indicated that there should be measures put in place to improve their use of nutrition information labels, as according to their suggestions.

5.8 GENERAL HEALTH STATUS OF ORDINARY SOUTH AFRICANS

Questions relating to perceptions are best asked in face-to-face interviews to allow the researcher the opportunity to ask respondents open-ended questions. The question regarding the general health status of ordinary South Africans was not asked in the questionnaire, as the survey comprised mainly closed-ended questions. The question was posed during the semi-structured interview to obtain professional opinions from the interviewed dieticians working mainly with the community that represents the study's population.

5.8.1 Results of the semi-structured interviews

All the interviewees were vocal about the poor state of health amongst South Africans. The interviewees pointed to the negative attitude that most people have when it comes to matters of health conversations. They stated that the health status of most people is worsened by the ever sprouting fast-food outlets and by people's adoption of Westernised lifestyles and diets. A comment from one of the interviewees was recorded as follows (repeated here):

> *Very unhealthy, a lot of South Africans have adopted to Westernised diet which are high in refined carbohydrates, higher protein intake and lower in complex carbohydrates like fibres*

The interviewed respondents further pointed to the unhealthy status of South Africans by referring to the ever-increasing cases of chronic and communicable diseases. They made the point that food choices directly affect the health status of consumers (repeated here):

> *. . . more obese and more exposed to these other chronic diseases of lifestyle, more of the diabetes that we are seeing, hypertension that we are seeing . . .*

5.8.2 Finding

The interviewees' general response to the concept of health status was clear in that the health status of many South Africans is very poor with a high prevalence to chronic and communicable diseases. The researcher, taking from the respondents' statements, made the finding that the health status of South African consumers is not in good standing, and drastic measures need to be put in place to positively deal with and solve the current state of affairs.

5.9 EXCLUSIVE USE OF ENGLISH IN THE NUTRITION INFORMATION LABELLING INDUSTRIES

The use of English as the only language of communication by the food industry when labelling food products is perceived negatively, because it does not give consumers much choice in the matter. Furthermore, language policies and unilateral decisions taken in the nutrition information labelling industries do not give consumers the opportunity to choose the language they prefer or understand. Thus, the situation tends to negatively impact on consumers who might opt to get information in a language other than English.

5.9.1 Results of the semi-structured interviews

The superseding use of English was indicated by all interviewees as an obstacle to consumers using nutrition information labels. They suggested that to enable improved use and better comprehension of nutrition messages on food products; there is an imminent need to remove the obvious linguistic barrier. A view supported by Tiara (1999:323) in Chapter 2, suggests that to improve the health of non-English speaking consumers there is a need to remove the language barriers that prevent consumers from accessing information that is meant to enhance communication on food products.

The interviewees further raised the concern that ignorance is another major factor among consumers who are linguistically not challenged when making food choices and having to use nutrition information label information, thus bringing forth the fact that English alone cannot be the only reason for consumers' not using or understanding nutrition information label information.

5.9.2 Finding

The study found that, according to the dieticians' viewpoint, lack of English proficiency on the side of the respondents was a disadvantage in their using and understanding nutrition information labels provided in English. Other factors raised by the respondents in the semi-structured interviews are the following:

- Exclusive use of English stood in the way of improved communication of nutrition information label messages in South Africa;
- English contributed to the ill health of most consumers as most do not have proficiency in the English language used on nutrition information labels and thus make ill-informed food choices;
- The current state of affairs gives English the supreme power over other languages.

The statement is supported by Phaahla (2006:54) in Chapter 2, stating that in South Africa, English currently occupies the *de jure* status of national and international language of commerce and industry in a country where English is spoken by 9.6% of the population as a first language (Census 2011). The researcher makes the assertion that, in South Africa, where the majority of people are not first/home-language speakers of English, it is particularly evident that English is a language of choice in most industries, and that languages other than English are not really accommodated.

5.10 CONCLUSION

It is evident from the findings that most of the respondents are aware, acknowledge and furthermore relate to the English language as a challenge when it comes to nutrition information labels. The majority indicated that English, and the technicality of the language/food substance, posed a serious health challenge with the intended messages not being understood by some and therefore running the risk of making uninformed decisions when purchasing food. The respondents' overwhelming advocacy was for the development of indigenous languages for use in nutrition information labelling industries.

As expressed by Brach, Fraser and Paez (2005:425), language barriers and inaccessibility are associated with poor quality of health owing to the non-existence of health information in a language known and sometimes preferred by consumers.

CHAPTER 6

SUMMARY, RECOMMENDATIONS AND CONCLUSION

6.1 INTRODUCTION

This chapter presents an overview of the research with specific reference to the background, rationale and aims. It addresses particular striking conclusions that are drawn from the study. The chapter ends with a consideration to the recommendations and the study's implications for future research.

6.2 SUMMARY

The main purpose of this study was to investigate the impact of monolingual nutrition labelling on consumers' health in South Africa. To address the main purpose of the research, the following aims and specific objectives were formulated:

- Assess the impact of monolingual nutrition labelling on consumers' health;
- Investigate the extent to which the English used in food product labelling contributes to the food choices made by consumers and the results of those choices on the health status of South Africans;
- Source out solutions to language factors that hinder access, and the quality of information necessary to consumers, when purchasing food products.

The specific objectives of the study as stated in Chapter 1 of the research were as follows:

- To identify current consumers' attitudes to and understanding of nutrition information labelling language, with particular reference to nutritional information;
- To determine whether nutritional labels affects consumers' choice and improve nutrient intake and diet quality;
- To prove that the language acts as a barrier, and utilisation of multilingual labelling can improve consumers' use of nutritional information.

The central hypothesis which gave direction to the current research study was:

Multilingual nutrition labelling in South Africa will cause more effective nutrition label usage by consumers.

The researcher, in a quest to address the above-mentioned drivers of the study, followed a two-pronged approach to data collection. The research data was collected by means of a questionnaire survey and semi-structured interviews. These two data collection tools produced rich data that addressed the purpose of the study. Data from the questionnaire survey was captured, cleaned and encoded into categories; the resulting categories were then reduced to thematic constructs. The interview data was recorded and later encoded into transcripts which were later decoded by the researcher and consolidated into themes, categories and sub-categories employing a qualitative data analysis and research software called Atlas.ti.

The researcher, with the purpose of the research in mind, identified the following central themes:

Phase 1: The Questionnaire Survey (a quantitative approach)

- Biographical and demographic information;
- Socio-economic status of the respondents;
- Education level of the respondents;
- Attitude towards respondents' home language development and use on nutrition information labels;
- The use, frequency of use and understanding of nutritional labelling;
- Suggested measures that can help in promoting label usage.

Phase 2: The semi-structured interviews (qualitative approach)

- General health status of ordinary South Africans;
- The education level of consumers;
- Exclusive use of English in nutrition information labelling industries;
- Socio-economic settings of consumers/patients;
- Development of South African indigenous languages.

The main research problem was: **To what extent does monolingual nutrition labelling in South Africa act as a barrier to effective nutrition label usage and what is its impact on consumer's health**? In an attempt to address the research problem and supporting objectives, the study determined whether in the first place, South Africans' health status posed a concern. The researcher posed the health question only to the dieticians in order for them to provide a professional view on the issue of South Africans' health status.

Therefore, the researcher excluded the question regarding health status in the questionnaire survey part of the study. In the study, the results from the ordinary questionnaire survey respondents were supplemented by the professional views of the dieticians who shared their knowledge in the semi-structured interviews.

The researcher's first step in determining the extent to which monolingual nutrition labelling acted as a barrier to effective nutrition usage and to put the study's hypothesis to test, was to establish the current perceptions regarding the use of English as the only language in nutrition information labelling. The study's findings show that respondents were in agreement that English is a dominant language in the food product labelling industry in South Africa.

Furthermore, the respondents stated that English as the only language of food nutrition labelling acted as a barrier to consumers' making use of food nutrition labels. In addressing the English question, the respondents alluded that it is not only the English that is the challenge; they gave light to the fact that the technical English used posed a serious problem when they had to make use of nutrition labels.

The second step was to explore and determine the effects of the monolingual policy (English) of the food manufacturing industry on the consumers' usage and level of understanding when using nutrition information. The issue of use and understanding was indicated as a "no problem" by most respondents. The concern they raised had to do with the level of use and understanding which they claimed impacted on their ability to make knowledge-based decisions.

There was a high percentage (82%) of respondents who stated that they 'partly understood', and others (9%) stated that they 'did not understand' messages communicated through nutrition labels. The reason behind the stated levels of understanding revolved around the fact that nutrition labelling was provided in English only, while others claimed that the technicality of the English used for nutrition information labelling was the main challenge. The other factor which had an influence on the level of understanding on the side of consumers was reported as education and income, amongst others.

The fifth step was to establish whether respondents were proficient in, and if they utilised, one of the official indigenous languages of South Africa. The findings revealed that all respondents regarded one of the indigenous official languages as a home language and furthermore, those respondents indicated that they use their home language when communicating with family and friends.

The sixth step was to ascertain whether respondents will be in support of the development and use of indigenous languages on nutrition labelling. The study revealed that 99% of respondents indicated that they would advocate for the development of indigenous languages and their use by the food industry when labelling food products. Though in support of the development and use, the respondents made the concession that indigenous languages lacked behind in terms of terminological equivalents, and terminology development of African languages would have to be made a main focus and followed with processes of translation to allow for equitable and comprehensible communication on nutrition information labels.

6.2.1 Purpose of terminology and translation in the development of language

In Chapter 2 of the study, it was stated that multilingual settings are becoming the norm in a global society and within the borders of South Africa, as with the provision of the Constitution and with more and more people coming from different social and cultural backgrounds utilising their rights and preference to communicate in their own preferred languages.

The importance of the two language developmental concepts (terminology and translation) was noted by Alberts (2008:18), who stated that in language, standardised terminology contributes immensely to the quality of translations and other language-specific services, including interpreting and editing; and leads to exact communication. Misinterpretations or misunderstandings are avoided. Furthermore, Ritter (2007:18) voiced that terminology was the most efficient solution for ensuring that translators speak consistently with one voice.

With regard to translation, as cited in Chapter 2, it is imperative to overcome language barriers in health message provision and that translating nutrition information labels into a consumer's language is the best way to overcome linguistic barriers and ensure safety and informed choice when the consumer purchases food products.

The seventh and last step was to explore which measures will be suggested by the respondents to help them make better use of nutrition labels and address the monolingual barrier that was currently the case. The research revealed that the majority of respondents favoured the use of multilingual nutrition labels, while there were a limited number of respondents who suggested that nutrition education and the use of plain English language could be the answer to consumers' not being able to utilise labels provided in English.

6.3 RECOMMENDATIONS

The most important criteria in communicating messages meant for adherence and information-sharing is the channel through which the messages are transferred. The channel helps users interpret and use messages with understanding and make knowledge-based decisions. The study's recommendations mainly concentrate on both the cognitive channel (which allows the functioning of the faculty for the processing of information, application of knowledge, and changing of preference) and interpretative channel (which is the action of explaining the meaning of something that could best help the consumers in making food choices and improving their health).

Recommendations pertaining to matters discussed or findings of the research are set out in the following paragraphs:

6.3.1 Recommendation: Development of indigenous languages for use in the nutrition information labelling industry

There is widely documented research regarding the vacuum and lack of technical and scientific equivalents in the indigenous languages when compared with the highly technicalised and scientific English in most fields. The statement is reported by Gauton, Taljard and De Schryver (2003:81) that the single biggest problem that translators who translate from a language such as English into the African languages have to contend with, is the lack of terminology in the African languages in the majority of specialist subject fields.

Thus, the development of technical and scientific terminology corpus in the field of nutrition needs to be the first step in the development of African languages. Then the translation process will need to follow, which will address the issue of putting language into use so that it further develops.

6.3.2 Recommendation: Introduction of multilingual nutrition labelling

A consumer-oriented nutrition label should be in a language that the consumer understands and is able to correctly interpret inoder to promote usage and access to nutrition labels. The recommendation is based on the fact that most respondents in the study indicated that a multilingual nutrition label can be an appropriate strategy aimed at helping consumers improve their usage of nutrition information labels. However, the second recommendation can only succeed if the first one is taken as the foundation to the development and usage of languages.

6.4 SUGGESTION FOR FURTHER RESEARCH

The study exposed areas which were not fully dealt with, but that contributed to the findings and could have an impact on language development in general, and areas that could promote nutrition information usage, thereby improving consumers' health. These areas can be taken as further research possibilities in trying to make nutrition labelling consumer-friendly and to give consumers a chance to make better food choices, thereby improving their health and lives. The areas that could be further researched are as follows:

- To investigate the feasibility of using indigenous languages to communicate nutrition information;
- To explore the processes of developing indigenous languages to accommodate the scientific and technical concepts dealing with nutrition;
- To examine the impact of nutrition labelling education and plain language on labels as measures to help consumers' use of nutrition information labels;
- To investigate the impact of education standards on the usage or non-usage of nutrition information labels, with specific reference to mathematical literacy.

6.5 CONCLUSION

The study's outcome and reviewed literature indicated that English, and to some respondents, the technicality of the English used, acted as a barrier to their fully understanding nutrition information label messages; thus having a negative impact on their food choices which directly affect their health and quality of life. The researcher's collected data regarding the issue of monolingual nutrition information labels was in resonance with the literature reviewed and presented in Chapter 2 of the research. The research asserts that multilingual nutrition labelling can contribute to the reduction of current health problems, and alleviate the burden on public health finances by increasing healthy diets, thus decreasing the number of communicable and chronic diseases. To be more specific, the researcher stresses that with reference to the health and nutrition label relationship, using multilingual labels can help the consumer in the following ways:

- Nutrition labelling will assist consumer understanding of food and diet;
- Improved understanding of the content of food will facilitate improved and more balance food choice;
- Improved dietary patterns will have benefits on consumer health.

For the above to happen, proactive steps of providing understandable and accessible nutrition information labelling messages need to be taken. The researcher reiterates the statement raised in the Gauteng Language Policy Framework that such access might not only refer to physically obtaining the information but must, as far as possible, be in a language of choice of the user of the service or product.

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APPENDIX A: FREQUENCY TABLES

Area	Frequency	Percentage	Cumulative
Semi-urban	50	50.00	50.00
Urban	50	50.00	100.00
Total	100	100.00	

Variable 1: Gender			
V1	Frequency	Percentage	Cumulative
Female	69	69.00	69.00
Male	31	31.00	100.00
Total	100	100.00	

Variable 2: Race			
V2	Frequency	Percentage	Cumulative
Black	100	100.00	100.00
Total	100	100.00	

Variable 3: Age			
V3	Frequency	Percentage	Cumulative
18-29 years	36	36.00	36.00
30-49 years	51	51.00	87.00
50 years+	13	13.00	100.00
Total	100	100.00	

Variable 4: Education			
V4	Frequency	Percentage	Cumulative
Grade 8-12	47	47.00	47.00
Post-Secondary	53	53.00	100.00
Total	100	100.00	

Variable 5: Income level per annum			
V5	Frequency	Percentage	Cumulative
R10 000-R99 000	19	19.00	19.00
R100 000-R199 000	53	53.00	72.00
R200 000+	28	28.00	100.00
Total	100	100.00	

Variable 6: Marital status			
V6	Frequency	Percentage	Cumulative
Cohabiting	4	4.00	4.00
Married	52	52.00	56.00
Sep/Div	5	5.00	61.00
Single	38	38.00	99.00
Widowed	1	1.00	100.00
Total	100	100.00	

Variable 7: Language grouping			
V7	Frequency	Percentage	Cumulative
Nguni Languages	40	40.00	40.00
Sotho Languages	60	60.00	100.00
Total	100	100.00	

Variable 8: Home language (mother tongue)			
V8	Frequency	Percentage	Cumulative
Sepedi	27	27.00	27.00
Sesotho	5	5.00	32.00
Setswana	28	28.00	60.00
Siswati	2	2.00	62.00
isiNdebele	13	13.00	75.00
isiXhosa	8	8.00	83.00
isiZulu	17	17.00	100.00
Total	100	100.00	

Variable 9: Language mostly used with family and friends			
V9	Frequency	Percentage	Cumulative
Sepedi	27	27.00	27.00
Sesotho	5	5.00	32.00
Setswana	28	28.00	60.00
Siswati	2	2.00	62.00
isiNdebele	13	13.00	75.00
isiXhosa	8	8.00	83.00
isiZulu	17	17.00	100.00
Total	100	100.00	

Variable 10: Importance of developing language chosen on V8			
V10	Frequency	Percentage	Cumulative
NO	2	2.00	2.00
YES	98	98.00	100.00
Total	100	100.00	

Variable 11: Use of nutrition label			
V11	Frequency	Percentage	Cumulative
NO	12	12.00	12.00
YES	88	88.00	100.00
Total	100	100.00	

Variable 12: Comprehension of nutrition label language			
V12	Frequency	Percentage	Cumulative
NO	14	14.00	14.00
YES	86	86.00	100.00
Total	100	100.00	

Variable 13: Level of understanding nutrition label language			
V13	Frequency	Percentage	Cumulative
Don't understand	9	9.00	9.00
Mostly understand	9	9.00	18.00
Partly understand	82	82.00	100.00
Total	100	100.00	

Variable 14: Reason for the stated level of understanding			
V14	Frequency	Percentage	Cumulative
English used	17	18.68	18.68
Technical English	74	81.32	100.00
Total	100	100.00	

Variable 15: Availability of nutrition labels in one's language will improve understanding			
V15	Frequency	Percentage	Cumulative
NO	2	2.00	2.00
YES	98	98.0..	100.00
Total	100	100.00	

Variable 16: Home language presence on nutrition information labels increases understanding			
V16	Frequency	Percentage	Cumulative
NO	2	2.00	2.00
YES	98	98.00	100.00
Total	100	100.00	

Variable 17: Measure to promote nutrition information label usage			
V17	Frequency	Percentage	Cumulative
Multilingual nutrition information labels	46	46.00	46.00
Nutrition labelling education	17	17.00	63.00
Plain English on labels	37	37.00	100.00
Total	100	100.00	

APPENDIX B: INTERVIEW SCHEDULE

DECLARATION TO PARTICIPANT (INTERVIEWEE)

It is important to note that during the interview session, an audio tape recorder will be used by the researcher. This will also aid the process of transcription and coding with both processes requiring accurate capturing of the interview discussions.

Only the researcher and the supervisors will have access to the audio tape recordings. Your answers will be totally anonymous and your identity will not be revealed under any circumstances.

INTERVIEW QUESTIONS FOR DIETICIANS

1	How is the general health status of South Africans according to you?
2	What is your take on labelling legislation when it comes to labelling language on food products?
3	Is nutrition labelling on packaged foods useful for healthy food choice promotion?
4	Do most of your clients use nutrition labels when purchasing food?
5	Does language used for food nutrition labels contribute to the usage or non-usage of nutrition information labels?
6	What is the level of your clients' understanding of nutrition labelling?
7	Do you find it difficult to explain nutrition concepts to your non-English speaking clients?
8	Could the introduction of multilingual labelling, using indigenous languages, motivate and increase understanding for healthier food choices?
9	How can consumers best be helped to make good use of nutrition labels to make better food choices?
10	In your opinion, do consumers make long-term healthier food choices as a result of having used nutrition information of food packaging?

APPENDIX C: INTERVIEW TRANSCRIPTS

Multilingual nutrition labelling and consumers' health in South Africa: An impact assessment.

Recording date: 19 June 2013

Interviewer: How is the general health status of ordinary South Africans?

Interviewee: Very unhealthy, a lot of South Africans have adopted to Westernised diet which are high in full refined carbohydrates, higher protein intake and lower in complex carbohydrate like fibre. And people have moved from drinking water to drinking cool drinks and we have a very high diabetic rise in patients coz I see a lot of diabetic and a lot of hypertension, it's . . ., we just not health and we don't care.

Interviewer: What could be the reason leading to people having such behaviours?

Interviewee: What's available to the consumers is what is available and if things are made easier for the consumer, they go for the easier option, which makes logical sense. So, if you find two minute noodles, instead of going and making pap and making gravy and all of that, things that we usually did do in the past. But what we do now is put two minute noodles in the microwave and then we have packet soup and we eat and pieces of fish fingers, for example.

Interviewer: What is your take on labelling legislation when it comes to labelling language on food products?

Interviewee: There are some labels that do give indigenous languages on but they are limited and it's indigenous meaning indigenous to where it came from. So you don't find things in South Africa that are written in South African indigenous languages on the label. So you find that a product from France will have a French on and German on and what what . . . like on your chocolates and, noodles do have nothing, it's just English. So the main problem I see with the legislation of labelling and everything is that people are not educated to read a label so what use is a label if no one is going to read it.

Interviewer: So for you the education part is more important than the language part?

Interviewee: What's in there, if a consumer can make a logistical choice they know, I'm not achieving this coz I know what this is and what this is and if you see a label it's a label you read and no one is going to stop and read a label if they don't know the importance of a label.

Interviewer: Is nutrition labelling on packaged foods useful for healthy food choice promotion?

Interviewee: Yes it is, because they are very transparent with what going to eat if you purchase a product. If they tell you how much fat is in a something they don't just tell you fat, total fat, they tell you total fat, and how much of the total fat is trans-fatty acid, and how much of that is mono-saturated fatty acid and of which is saturated and you can tell whether a product is healthy or not based on what they have labelled.

Interviewer: Do most of your clients use nutrition labels when purchasing food?

Interviewee: Before they are educated in using them, they don't use them, they just see it on a package and assume it's probably a name of some sought but after being educated they realise what they eating and most of them are shocked, a lot of them are shocked at how much salt they eating. Salt and sugar are the main problems on the label and because they didn't know before, after they known they are shocked.

Interviewer: Does language used for food nutrition labels contribute to the usage or non-usage of nutrition information labels?

Interviewee: Yes it does and we could copycat like we copy catting now with the Westernised diet, copycat by translating the language from English to at least three or four other languages that are indigenous in South Africa; that could help. Because the other thing to think about is the educational level of people, that something beyond the labelling control.

Interviewer: So in your expert opinion, language does play a role and it could help in . . .?

Interviewee: A big role . . .

Interviewer: All right

Interviewee: Yes, a big role, some people won't just read, this area is predominately Pedi so there is a lot of concepts that you just assume the patients understand by how you explain them even by just explaining that this is a good one and this is a bad one. So we do need people to help have our food dictionary in our indigenous languages.

Interviewer: Could the introduction of multilingual labelling, using indigenous languages, motivate and increase understanding for healthier food choices?

Interviewee: Yes, it can help but first you just need to be educated in reading labels and then you can understand

Interviewer: So for you before multilingual labelling, we need education?

Interviewee: Yes, that's my personal feeling.

Interviewer: Alright, ok

Interviewee: Like if you don't know, you won't ask and the minute you go shopping you just get what the cheapest is available in the economy that we are in now without checking the label because no one told you that it is important and that you know after seeing a dietician and we cannot see everybody. So I think labelling should be coming to the fore front especially with all the allergies that are emerging now and all of that it is very important that people understand labelling first and then we can translate. The translating as an aider is also not a problem.

Interviewer: How can consumers best be helped to make good use of nutrition labels to make better food choices?

Interviewee: Like I said, we just describe things; we use descriptive language when we do not have appropriate names, appropriate words that we can use in English. So like the example I made, instead of saying something is a trans-fatty acid and is bad for you or it's saturated fatty-acid and is bad for you we say this is just bad without explaining what a trans-fatty acid is. So you just explain the process of fatty acid, what is wrong with the fat, and you just say it's fat, and that's all. And if we could have . . . we just describing and that's the thing.

Interviewer: So terminology for you is what is needed?

Interviewee: Yes we need terminology, appropriate terminology.

Interviewer: Alright

Interviewee: That is also important

Interviewer: In your opinion, do consumers make long-term healthier food choices as a result of having used nutrition information of food packaging?

Interviewee: So, as in labels or .as in like are labels important?

Interviewer: Like, after you taught them how to use a nutrition label, after knowing that, do they perhaps make long-term healthier food choices?

Interviewee: Definitely, that's definite and if they make bad choices then the honours is on them, you know they say ignorance is bliss, if you don't know you don't care and you never know, if you educate them and they know. When you pick up a slap of chocolate and read the label and you see, and you like argg I'm going to eat it anyway, and you know it is wrong but you going to take it anyway; so it is very individualised how they make long term choices because it multifactorial the food choices you make as a person. For instance I would take the cheaper option and if I see a chocolate and then I see that the chocolate is R12 and the lettuce is R7, I can't say I am taking the cheaper option by taking the chocolate.

Interviewer: Ok, I think I get what you saying . . .

Interviewee: So we can't always blame economics but then you can see the multi-factors because it is economics and what you are used to eating, things that you grown up with and things and habits that you just accumulated and it is the lifestyle that you lead, where you work, how long you work, how much time do you have to be looking at these things and there is a lot of things you can think of.

Interviewer: So the other thing I'm hearing is not only education but you can have education and all others but time also that one has to do shopping does also play a role

Interviewee: Yes, yes, yes . . . because if you don't have the money, you have to work more and when you work more you neglect house duties more and something has to give and there are always something quicker to use and very easy for you to do.

Interviewer: Thank you for your time; this is the end of our discussion

Interviewee: It is a pleasure.

Recording date: 21 June 2013

Interviewer: As an introduction to the process, I will start by explaining what my study is about and what will be expected from you in this interview. The study that I am undertaking looks at the language used for nutrition labelling on food products and its impact on the current health status of South African consumers. What I am looking for from you is your expert opinion based on your experience working with dietetics and patients requiring diet advice relating to the questions I have prepared for this interview.

Interviewee: Ok no problem

Interviewer: The first question is how is the general health status of South Africans according to you?

Interviewee: As South Africans or as . . . but according to my view the health status of South Africans is dependent on by province to province, on province to province, like I can say according to the research or the updates or the articles that we read, Eastern Cape is the province that has more malnutrition, health status in the Eastern Cape is very poor compared to other provinces, and then I think it is followed by KZN and then our province Gauteng is number seven, meaning that malnutrition in Gauteng is not as poor as in other provinces, I think Gauteng is number seven or six and also I think Mpumalanga is another province that has more malnutrition than other provinces and the province that is well nourished is Western Cape.

Interviewer: Alright, so if you take all the provinces and you have to refer to South Africa as a whole, how is the health status of South Africans, generally?

Interviewee: According to me I think it is not good; it is not good as ……… that malnutrition is another leading cause of death. Because I think in general South Africa has more percentage which can be at about 25% of malnutrition according to my estimation and then it can be caused by family background and cultural beliefs and then economics status of the country and another it can be caused by this diseases like HIV/Aids, most of the people are malnourished, they are very very underweight and it can be caused by communicable diseases like 'TB' because you know that 'TB' can cause a person to lose weight and we also record that under malnutrition as malnutrition is not only measured by not getting enough food cause if your weight is less than the required BMI we record that as malnutrition. Like according to the BMI chart, malnutrition is referred to as underweight. According to me malnutrition is more prevalent.

Interviewer: What is your take on labelling legislation when it comes to labelling language on food products?

Interviewee: Most of the time the language that is used I think 99% is English and then also it will draw back to provinces like KZN and most people in the deep rural areas do not know English. They don't know English and they can't even read the food labels. They can't even use the food labelling and then according to my knowledge our society doesn't even follow the food labels because when we talk of food labelling we mean the nutritional information of the product and we also we mean the ingredients. People don't know much about this thing, rather than preferring this food labelling they prefer methods of preparation. Most of the time they go for preparation instead of looking at the amount of energy, vitamin is contained in a product. They don't just care about these labels, our society.

Interviewer: So, if we looking at the current labelling legislation, is the problem with the English used in providing consumers with the information?

Interviewee: I cannot say the problem is with the English that is used, for me people are just ignorant because even us as dieticians when we issue tins of food product to a patients most of the time we don't, like according to our experience, according to practicality too, we don't explain the amount of energy, carbohydrates, vitamins, are contained in a product, we don't explain. We just that this thing has omega3 fatty acid and can help with heart diseases we just concentrate on ingredients rather concentrating of food labelling. Normally food labelling is something that us as dieticians look at to determine how much it contain of …. In order to achieve the patients' dietary allowance. The labels are mostly used by dieticians and patients opt for preparation methods.

Interviewer: Is nutrition labelling on packaged foods useful for healthy food choice promotion?

Interviewee: It is hundred per cent useful according to me because it guides you, let's say, this food are recorded sequentially, let's say they say this food is a low carbohydrate food, you can see that energy will be recorded number one and carbohydrates number four and carbohydrates is mainly starch. Which means if they say, fat is recorded at number two, it means the product is high on fat and you can notice that without reading anywhere else because if the food is low in fat that must come after number four, but if fat comes first, it means that product is very high in fat.

Interviewer: Do most of your clients use nutrition labels when purchasing food?

Interviewee: According to my experience they don't use unless in highly modernised society, but they don't use. Most of them they use that sign that is written 'heart' with a fork and a knife from the heart foundation. Most people if they see that heart foundation sign, you know it?

Interviewer: Yes I know it, the red one with a knife and a fork, I see it

Interviewee: They just assume that that thing is healthier.

Interviewer: So they don't use the labels and rather use the signs on the food product?

Interviewee: Yes they don't use the labels, they may use the sign and the ingredients and they concentrate on the ingredients and the heart foundation sign.

Interviewer: Does language used for food nutrition labels contribute to the usage or non-usage of nutrition information labels?

Interviewee: They influence the patients to use the labels, it is just that they use some calculations, they use arithmetic and the patients don't understand how much is four hundred per 16 grams, they don't even understand.

Interviewer: So for you the problem is the language that is used, it is also now the mathematics side of the label?

Interviewee: Yes the calculation side, like I can say that the language is not a barrier for usage of food labels, I can say we are not used to it, like I can say we are not used to it.

Interviewer: Don't you think maybe that the reason why not used to it that we cannot relate to it in a language that we understand and most people will understand?

Interviewee: Even if we can relate, according to my side, I don't think so

Interviewer: You don't think language can ever aid in anyway in people using the labels?

Interviewee: Ke hore, it normally helps, in most cases it normally helps maybe in medical purposes, let's say a patient is admitted in the hospital, when you accept the patients and you have to prescribe, ke hore inside the hospital is very very useful but outside it's not useful. Inside the hospital, before you can prescribe anything, we just calculate the requirements of the patient and measure with one of the food whether it matches or not. It normally used for medical purposes. That's from our experience.

Interviewer: What is the level of your clients' understanding of nutritional labelling?

Interviewee: According to me it could be ± five per cent

Interviewer: So the understanding is not that good?

Interviewee: Yes, ja it is not, the other reason why don't understand is that dietetics is taboo to our culture and do not even know what is a dietician. They don't know how dieticians work unlike with other profession like social work, people will understand social work more than dietician or a doctor or a nurse. That is why they can't even program their minds to know these things but mostly for us black people and in white culture I think it is better.

Interviewer: Do you find it difficult to explain nutrition concepts to your non-English-speaking clients?

Interviewee: Yes we find some difficulties but some of us we just ask if there is someone who can understand English at home if the particular person says yes I've got a son or I've got a daughter who can understand English, I just give guidance to that patients and tell them to just go and tell your son to help cause she understand it.

Interviewer: In a way what you saying is your patients won't be understanding the English so you find someone who can understand the English to explain to them in their home language?

Interviewee: Yes

Interviewer: So, language does play a part in people understanding nutrition information labels? Because if that person was sitting here and there was no problem in explaining concept you shouldn't be requiring them to be helped by their children.

Interviewee: Yes in most we do. I don't know how to put it, but in most cases we just explain and tell them to tell their children to explain.

Interviewer: Could the introduction of multilingual labelling, using indigenous languages, motivate and increase understanding for healthier food choices?

Interviewee: From my experience, even if they were to do multilingual labels, people are not convinced by nutritional labels. In most cases, only dieticians are much concerned but people outside are not concerned cause even if you try explaining I don't think they will use it.

Interviewer: What do you think is the problem, why aren't people using that, is it because they are not educated to use it, is it because they don't understand the language or because of the mathematics that is used?

Interviewee: The mathematics and the measurement used on these things. If you look at food labels it is made up of more measurements and arithmetic and I think it is because of arithmetic that people don't understand.

Interviewer: And arithmetic will take you back to education and say people are not educated adequately to be able to count those?

Interviewee: Even if you are educated, because we do have some nurses and teachers that are retired, even for them to understand this is a barrier, measurement wise.

Interviewer: So measurement is a problem?

Interviewee: Yes, and analysis also.

Interviewer: Measurement and analysis of the labels, ok

Interviewer: How can consumers best be helped to make good use of nutrition labels to make better food choices?

Interviewee: I think because of South Africa having some care givers, those who go and take care of sick people and give some food parcels, I think if we can have dietary assistance as care givers that can be trained by dieticians and go to the community as whole and teach the community about the importance of food labelling and I think non-usage can be reduced.

Interviewer: In your opinion, do consumers make long-term healthier food choices as a result of having used nutrition information of food packaging?

Interviewee: I think to some educated person it can be, to some educated.

Interviewer: and to others?

Interviewee: To others, people are very ignorant about food labelling but to some educated people I think they can make.

Interviewer: So people do make long-term health choices by using those labels but for you it is not all but some people?

Interviewee: Yes it is some.

Interviewer: Ok, thank you very much for your time and that will the end of interview question I had prepared for today.

Interviewee: Ok, thanks though the questions were very tricky.

Recording date: 21 June 2013

Interviewer: How is the general health status of South Africans according to you?

Interviewee: I think, firstly with my experience though with my patients is that I'm working with HIV positive patients….most of my patients are underweight when it comes to their nutrition status, underweight but some are overweight the general trend right now in South Africa is more of overweight, so they don't have, they are not in a good standing with their health in a way because there is over and underweight with regard to the general status of the health of the people I'm seeing here and even just around and not in the hospital. So mostly us as South Africans we are becoming more Westernised, more obese and more exposed to these other chronic diseases of lifestyle, more of the diabetes that we are seeing, hypertension that we are seeing which was not prevalent previously. So I will say out health status as South Africans is not that good.

Interviewer: What is your take on labelling legislation when it comes to labelling language on food products?

Interviewee: Firstly the labelling is done in English in most cases and when you and when you look at the data of how many are illiterate I'm not sure if it is the 2010 or 2011 census

Interviewer: It was 2011

Interviewee: Yes it shows that more than a quarter, more than a quarter of people are illiterate in south Africa, so you can see the impact it will have in reading the label, and also there is the 'IDC' I don't care attitude in South Africa. But when it comes to labelling I still feel that the government is letting us down when it comes to labelling as anyone can claim whatever they want to claim on their product whether it is proven or not it doesn't matter. So with regard to the language, it is done mainly in English and it is not everyone who can read and understand what it means and also whatever the labels are there, the shortened form that we use as nutritionist and dieticians we will understand and people will not understand, like fat content is too much in this product because it has been listed in the first three ingredients, they don't understand so the language and the interpretation of the labelling is not up to par with us as South Africans, just for normal South Africans, so the language is a factor.

Interviewer: Is nutrition labelling on packaged foods useful for healthy food choice promotion?

Interviewee: Yes it is useful, but you have to understand, you have to be able to interpret to make a good food choice. So if someone comes as says the fat content in this is, let's say in this 100g you will find 3g of fat, what does that mean to a lay person? I as a dietician will understand that this is how of a per cent is allowed if I'm looking at having a high fat meal, this is the amount of fat I'm allowed to have, but in a layman's terms what does that mean so it is useful but do they know how to interpret it?

Interviewer: Do most of your clients use nutrition labels when purchasing food?

Interviewee: No, no. I will be lying, maybe in private practice and also remember with my patients or my clients here most of them they didn't go to school so they don't understand this English and to explain to them we try explain in a layman's terms but with food labelling it is not that much of an issue, it is not much of an importance, eish, I don't know how to express it but they are not using it in making choice of whatever they going to eat.

Interviewer: So they don't use nutrition information labels?

Interviewee: No, not here. Unless I'm in private practice then normally they will use it.

Interviewer: The difference will be the patients you see when in private whom they could be better in understanding the English and here that doesn't balance?

Interviewee: Here at public hospital we are dealing with people who are not working, who struggle to even buy that basic food you see, so when it comes to food labels mostly your maize meal, you know maize meal

Interviewer: Yes I know it

Interviewee: Maize and sugar, those basic foods it's not like you can reinforce the food labelling to be an issue, but when it to private patients, those patients who will want to know more about hypertension that is when you go into finer details with them but with the patients that I'm seeing here it is not much about food labels. You will with those who want to lose weight, you will be like when you go the shop make sure that you read your food label at the back and whatever staff you buying, if they state fat in the first three ingredients, know that that thing is high in fat. I won't say

Interviewer: Does language used for food nutrition labels contribute to the usage or non-usage of nutrition information labels?

Interviewee: Could it be a factor, yes and yes. Yes it could be a factor because they have to understand what they are reading there but there is a thing with the nation that we have, they are not interested, and unfortunately the client that I'm dealing with they are not that interested in labelling. So I will yes and no, because they won't be interested except if they want to lose weight.

Interviewer: What is the level of your clients' understanding of nutritional labelling?

Interviewee: I think the other thing with my patients is you find them saying messages about healthy food to them comes the money, how am I going to buy that, so that's another factor. So when you start talking about food labels it is like it's that particular kinds of food the ones that are expensive in a way so the money is another factor. Yes money and the ignorance, the IDC, I don't care attitude and they also don't see the relevance of having them, what is it for, ngidlilengisuthe, that all.

Interviewer: Do you find it difficult to explain nutrition concepts to your non-English-speaking clients?

Interviewee: Yes, yes I do. I'm a Zulu working in Pretoria and my patients are Tswana, Vendas, Pedis and all kinds of different people, so to explain the vitamins I will normally use examples to define them. So to explain to someone what is a vitamin I can't explain in their language unless it is someone who speaks Zulu we will understand each other, I will explain in Zulu that 'le umsoxo le esizaumzimbawakhouyenze so so' and for the others who are non-Zulu speaking I will try and explain with examples like with your vegetables and with trans-fatty etc. you don't even go there.

Interviewer: So what you saying is that in Zulu there are concept equivalents for the English concepts used in nutrition labels?

Interviewer: No, what I'm saying is that I'm Zulu and some of this nutrition words I can explain them better in my home language because I grew up knowing them in my home language, so for me to translate to Tswana to Pedi to Venda, some of them I can't because I don't know how to say them but I will find a way of explaining them in a way that that person will understand but it won't be the same like the language barrier will be there.

Interviewer: Ok, so my interest is are there equivalents in isiZulu for all English concepts used in nutrition labelling?

Interviewee: No we don't have, but explaining in Zulu becomes easier. Like for vitamins in Zulu it will be umsoxo right, then going down to carbohydrates you want to find a word that will say exactly carbohydrates but in Zulu it is not there or maybe it is there but we don't know about it you know. But you try to explain in a way that they will understand as to what carbohydrates are and you so Pedi, Zulu, English or what, some of these words you can't really directly transfer from English to whatever you want.

Interviewer: So there are concepts that are difficult to explain in Zulu?

Interviewee: Yes, yes.

Interviewer: Could the introduction of multilingual labelling, using indigenous languages, motivate and increase understanding for healthier food choices?

Interviewee: Yes, I think it will because now with urbanisation people are starting to have this thing of wanting to know more what is it they are eating not limited to patients per se, but generally as South Africans we are so inquisitive and we want to know what is happening in our country, what are these food labels and how are they going to help in the long run. So I think yes, if we can have food labels in different languages it might help but also we must instil this mentality of reading to encourage people not to just take everything but to read whatever before taking it so that mentality is also needed and unfortunately with such pass rate of 30% in our matrics, I don't know.

Interviewer: What you saying is, you can take care of other contributors, whether it is language, reading but it goes to education as well?

Interviewee: They need to be educated and they need to have that I want to be educated, I want to know and not to just take anything.

Interviewer: How can consumers best be helped to make good use of nutrition labels to make better food choices?

Interviewee: Firstly, just to conduct awareness, yes we do have our calendar dates, like we will know that November we have our diabetic day, August is breastfeeding time but then let's make them aware, have road shows maybe where you will be teaching them why it is important for them to know and read those food labels. The media as well, involve everyone, health department they know these things and make the department to be accountable for whatever food product that goes out there as to whether it has been tested because what are the benefits of everyone reading food labels, what do you mean by better choices? Am I not going to be diabetic in the long run, or how can I help my aunt who is diabetic, in all that, involve everyone from the community, the churches, everyone to understand the reasons why need to eat healthy, why we have to make better food choices, why not to have a fat-cake and rather have a sandwich with those tomatoes, why are supposed to have our own food gardens, vegetable gardens in our homes because people will be telling you I can't buy those healthy staff because they are expensive yet they have a very big lawn which they are doing anything with, like to emphasise the importance of having vegetable gardens and for everyone to understand the importance of healthy eating. From younger generation to older generation, and on that regard, if our universities even our schools where to have a curriculum that will include in life orientation the importance of healthy eating, involve everyone, why is it important, you hear me, just involve everyone, Motsoaledi if you are out there tell them why are we supposed to be a healthier generation, what are the impact, what are the implications, if we are not following these why not and make those food choice not cheaper but at a reasonable cost because people have this mentality that healthy food choices are expensive yet when you check they are not, and also remember that we have the vitality making them earn points when buying healthy option from pick 'n pay, woollies and what and what, to have to those things even in our communities for them to understand and know that you get money back for buying healthy food staff and for everyone to be involved and this is why it is important and to explaining why it is important, so everyone should play their role.

Interviewer: In your opinion, do consumers make long-term healthier food choices as a result of having used nutrition information of food packaging?

Interviewee: Not all of them, but some, I know of two and they are gogos and have diabetic and BP so they changed, you know with our culture when you are bigger and have the fuller figure you are ok. So hence I taught them and reinforced the healthy eating options they started losing weight and feeling better about themselves and for the whole year they kept that weight off, so they did understand about the food labels. You know what; it wasn't exactly the food labels, but cutting down on fat-cakes, mayonnaise all those things for example. Yet it is not all of them but some you see they come back and they gained weight and unfortunately that's the indicator that I'm using at the moment in following whatever I taught them. So, I'm also not so much in food labelling in a way with regard to my scope of work.

Interviewer: So what you saying is some do tend to make long-term healthier choices and other they don't?

Interviewee: Some, what I can say is that even I am not so much encouraging them in so much as food labels are concerned, yes I will teach them but it is not something that I am emphasising.

Interviewer: And the reason for that is?

Interviewee: It is because I am dealing only with HIV patients and mostly they are on grants, they tell you that they don't have sufficient money to buy food. So most rely on social workers with food parcels, you see, so mostly what I do with them is vegetable gardening for them gain weight, to be healthy.

Interviewer: Lastly then, taking from the point you raised, do economics play a major role people using nutrition information labels?

Interviewee: Yes, it does.

Interviewer: Ok, thank you very much for your time and the expert responses in this interview and that will the end of interview questions I had prepared for today.

Interviewee: Alright, thank you.

APPENDIX D: STUDY QUESTIONNAIRE (INCLUDING THE TRANSLATED VERSIONS)

MULTILINGUAL NUTRITION LABELLING AND CONSUMERS' HEALTH IN SOUTH AFRICA: AN IMPACT ASSESSMENT

M Tech study

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Questionnaire

Sections: A, B & C

The questionnaire is anonymous and confidential, and no name or personal information is required.

QUESTIONNAIRE

This questionnaire consists of three sections. Section A contains the instructions to complete the survey including an example on how to complete the tabled questionnaire. Section B contains the biographic and demographic information required; Section C contains the survey questions and you are requested to react by choosing one response in the blocks indicated next to each question. Please ensure you complete <u>all</u> the questions. Thank you for your time and participation.

<u>SECTION A: Instructions:</u>

- Each question has a different number of options.
- Please select one option per question by making an X in the corresponding block number next to your choice.

Table 3-3 depicts an example of a question and how to mark your choice.

Table 3-3: Example of a question with how to respond

1	What is the value of eating healthy?	Little value	1	Moderate value	2	High value	3

SECTION B: In this section you are requested to provide biographical and demographic information.

(a)	Gender		
Male	1	Female	2

(b)	Race								
Black	1	Coloured	2	White	3	Indian	4	Other	5

(c)	Age					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Education level						
No formal schooling	1	Grades 1 - 7	2	Grades 8 - 12	3	Post-secondary	4

(e)	Income level per annum				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Marital status								
Single	1	Married	2	Separated/divorced	3	Cohabiting	4	Widowed	5

(g)	Language grouping												
Sotho languages	1	Nguni languages	2										
(h)	What is your home language (mother tongue)? (choose only one)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	siSwati	7
(i)	Which language do you use when speaking to your family and children?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Afrikaans	8	English	9	siSwati	10	Tshivenda	11						
(j)	Do you think it is important to develop X (language chosen in question (h)) for use in business communication?												
Yes	1	No	2										

SECTION C: Nutritional Label Use

1	Do you use nutrition information labels?											
Yes	1	No	2									
2	How often do you use the nutrition information on food packages to do the following?											
2.1	Decide which brand to buy	Never	1	Rarely	2	Sometimes	3	Always	4			
2.2	Determining the nutritional value of food	Never	1	Rarely	2	Sometimes	3	Always	4			
3	Do you understand nutrition label language?											
Yes	1	No	2									
4	What is your level of understanding of nutrition label language?	Don't understand	1	Partly understand	2	Mostly understand	3					
5	If the response to question 4 is partly or don't understand, what is the reason?											
The fact English was used	1	Technicality of the English language used	2									
6	Availability of nutrition labels in one's language can help with understanding labels?											
Yes	1	No	2									

7	Would having your home language used on labels increase your understanding of nutrition information labels?		
Yes	1	No	2

8	Which measure, amongst the following, would contribute to you using nutrition information labels more?	
8.1	Multilingual nutrition information labels	1
8.2	Nutrition labelling education	2
8.3	Plain English on labels	3
8.4	Others measures (please provide examples below)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Thank you for your participation in this survey; it is highly appreciated.)

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Irhelo lemibuzo

Iingaba: A, B & C

Irhelo lemibuzo leli aligaguli ibizo lomuntu begodu liyifihlo,begodu akunabizo nofana imininingwana yomuntu ezokufuneka.

Irhelo lemibuzo

Irhelo lemibuzo leli lineengaba ezintathu.Isigaba A simumethe imilayo yokuzalisa iphenyo, efakahlangana nesibonelo sokuzalisa irhelo lemibuzo elisethebulini.Isigaba B simumethe imininingwana efunekako ngepilo yomuntu neyesitjhaba. Isigaba C simumethe imibuzo yephenyo begodu ukhonjelwa bona uphendule ngokukhetha ipendulo yinye esemabhoksaneni eduze nombuzo ngamunye. Qinisekisa bona uphendula imibuzo yoke.Siyathokoza ngesikhathi sakho nokuzibandakanya kwakho.

ISIGABA A: Imilayo:

- Umbuzo ngamunye unenani elihlukileko lalokho ongakhetha kiko.
- Ukhonjelwa bona ukhethe kunye embuzweni ngamunye ngokuthi utshwaye ngo-X enomborweni ekhambelana nebhlogo eliseduze nalokho okukhethako.

Ithebula 3-3 iveza isibonelo sombuzo nokuthi ulenze njani itshwayo lakho lokukhetha.

Ithebula 3-3: Isibonelo sombuzo nokuthi kufanele uphendule njani

1	Khuyini ukuqakatheka kokudla ukudla okunepilo?	Kuqakatheke kancani	1	Kuqakatheka okulingeneko	2	Kuqakatheka okubalulekileko	$\boxtimes$ 3

ISIGABA B: **Kilesi isigaba ukhonjelwa bona unikele iminininingwana ngepilo yakho neyesitjhaba.**

(a)	Ubulili								
Duna	1	Sikazi	2						
(b)	Ubuhlanga								
Umumuntu onzima	1	ulikhaladi	2	Umumuntu omhlophe	3	uliNdiya	4	Obunye	5
(c)	Ubudala								
	18-29yrs	1	30-49yrs	2	50yrs+	3			
(d)	Izinga lefundo								
Abangakafundi	1	AmaGreyidi 1 - 7	2	AmaGreyidi 8 - 12	3	Ifundo ephakemeko	4		
(e)	Izinga lomrholo ngomnyaka								
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3				
(f)	Ubujamo bokuthatha/bokuthathwa								
-ngakathathi /-ngakendi	1	-thetheko/-thethweko	2	-tlhalileko	3	-hlalisene	4	-bhujelweko	5

(g)	Ikoro yamalimi		
Amalimi wabeSuthu	1	Amalimi wesiNguni	2

(h)	Ngiliphi ilimi lakho lekhaya (ilimi lekhaya)? (khetha linye)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	siSwati	7

(i)	Ngiliphi ilimi olisebenzisako nawukhuluma nomndenakho kanye nabantwana bakho?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Afrikaans	8	English	9	siSwati	10	Tshivenda	11						

(j)	Ucabanga bona kubalulekile ukuthuthukisa X (ilimi olikhethe ngehla ku (h) bona ulisebenzise ekukhulumisaneni ngebhizinisi?		
Iye	1	Awa	2

ISIGABA *C:* Ukusetjenziswa kwamaleyibuli wokondleka

1	Uyawasebenzisa amaleyibuli wemininingwana yokondleka?		
Iye	1	Awa	2

2	Uyisebenzisa kangangani imininingwana yokondleka esempakaneni zokudla bona ukwazi ukwenza okulandelako?								
2.1	Ukuqunta bona uthenge muphi umkhiqizo	Angithomi	1	Akukavami	2	Ngesinye isikhathi	3	Ngeenkhathi zoke	4
2.2	Ukuqala ukubaluleka kokudla	Angithomi	1	Akukavami	2	Ngesinye isikhathi	3	Ngeenkhathi zoke	4

3	Uyalizwisisa ilimi elitlowe kumaleyibuli wokudla?		
Iye	1	Awa	2

4	Lingangani izinga lakho lokuzwisisa ilimi elitlolwe kumaleyibula wokudla?	Angiwazwisisi	1	Ngiwazwisisa kancani	2	Ngiwazwisisa khulu	3

5	Nangabe ipendulo yakho yombuzo 4 ithi ngizwisisa kancani nofana angizwisisi, khuyini isizathu salokho?		
Kungebanga lokusetjenziswa kwesingisi	1	Izinga eliphezulu lelimi lesiNgisi elisetjenzisiweko	2

6	Ukuba khona kwamaleyibuli wokudla atlolwe ngelimi lakho kungakusiza bona uwazwisise?		
Iye	1	Awa	2

7	Ukusetjenziswa kwelimi lakho lekhaya kumaleyibuli kuzokwenza bona uzwisise amaleyibuli wokudla?		
Iye	1	Awa	2

8	Ligadango liphi, hlangana nala alandelako elingenza bona usebenzise amaleyibula wokudla khulu?	
8.1	Amaleyibuli wokudla aliminengi	1
8.2	Ifundiso ngamaleyibula wokudla	2
8.3	IsiNgisi esizwisisekako kumaleyibula	3
8.4	Amanye amagadango (nikela iimbonelo ngenzasi)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Siyathokoza ngokuzibandakanya kwakho ephenyweni leli; Sithokoza khulu.)

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Iphepha lemibuzo

Amacandelo: A, B & C

Eli phepha lemibuzo alinagama kwaye likwayimfihlo, kwaye akukho gama okanye iinkcukacha zakho eziya kufunwa.

IPHEPHA LEMIBUZO

Eli phepha lemibuzo linamacandelo amathathu. Icandelo A linemiyalelo yokugcwalisa uphononongo kuquka umzekelo wokuba igcwaliswa kanjani itheyibhile yephepha lemibuzo. Icandelo B liqulethe iinkcukacha zoluntu nezomntu ezifunekayo; Icandelo C liqulethe imibuzo yovavanyo kwaye uyacelwa ukuba uchonge impendulo enye kwibloko ezibonakalisiweyo ecaleni lombuzo ngamnye. Nceda uqinisekise ukuba ugcwalisa yonke imibuzo.Enkosi ngexesha lakho nangokuthatha inxaxheba.

ICANDELO A: Imiyalelo:

- Umbuzo ngamnye unendlela ezininzi ongazikhetha
- Nceda ukhethe indlela enye kumbuzo ngamnye ngokuthi wenze u-X kwibloko ehambelana nenombolo esecaleni koko ukuchongayo.

Itheyibhile 3-3 ibonakalisa umzekelo wombuzo nokuba ukuphawula njani oko ukuchongayo.

Itheyibhile 3-3: Umzekelo wombuzo ukuba uwuphendula njani

1	Liyintoni ixabiso lokutya ngokusempilweni?	Ixabiso lincinci	1	Ixabiso liphakathi	2	Ixabiso liphezulu	3

ICANDELO B: Kweli candelo uyacelwa ukuba unikeze iinkcukacha zomntu nezoluntu.

(a)	Ubuni		
Indoda	1	Owasetyhini	2

(b)	Uhlanga								
Mnyama	1	Webala	2	Mhlophe	3	Indiya	4	Ezinye	5

(c)	Ubudala					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Izinga leMfundo						
Akukho mfundo isesikweni	1	Iigreyidi 1 – 7	2	Iigreyidi 8 – 12	3	Imfundo ephakamileyo	4

(e)	Izinga lomrholo wonyaka				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Izinga loMtshato								
Awutshatanga	1	Utshatile	2	Nohlukene/uqhawule umtshato	3	Uyahlalisana	4	Ubhujelwe ngumyeni/yinkosikazi	5

(g)	Ukuhlanganiswa kweelwimi		
Iilwimi zesiSotho	1	Iilwimi zesiNguni	2

(h)	Loluphi ulwimi lwakho lwasekhaya (ulwimi lokuqala)? (khetha lube lunye kuphela)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	siSwati	7

(i)	Loluphi ulwimi olusebenzisayo xa uthetha nosapho kunye nabantwana?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
I-Afrikaans	8	isiNgesi	9	siSwati	10	Tshivenda	11						

(j)	Ucinga ukuba kubalulekile ukuphuhlisa X (ulwimi oluchongwe kumbuzo(h)) ukuba lusetyenziswe kunxibelelwano ngezoshishino ?		
Ewe	1	Hayi	2

<u>ICANDELO*C:*</u> Ukusetyenziswa kweLeyibheli yeSondlo

1	Ingaba uyazisebenzisa iinkcukacha ezikwileyibheli yezondlo?		
Ewe	1	Hayi	2

2	Ingaba uzisebenzisa kangakanani iinkcukacha zesondlo ezikwiipakethi zokutya ukwenza oku kulandelayo?								
2.1	Ukugqiba ukuba loluphi uhlobo omawuluthenge	Zange	1	Nqabileyo	2	Ngamaxesha athile	3	Rhoqo	4
2.2	Ukuchaza ukubaluleka kwesondlo sokutya	Zange	1	Nqabileyo	2	Ngamaxesha athile	3	Rhoqo	4

3	Uyaluqonda ulwimi olusetyenziswa kwileyibheli yesondlo?		
Ewe	1	Hayi	2

4	Lungakanani ulwazi lwakho ngolwimi olukwileyibheli yesondlo?	Awuluqondi	1	Uluqonda kancinci	2	Uluqonda kakhulu	3
5	Ukuba kumbuzo wesi-4 uphendule ngokuthi uluqonda kancinci okanye awuluqondi, yintoni isizathu?						
Njengokuba isiNgesi sisetyenzisiwe	1	Ukuntsonkotha kolwimi lwesiNgesi olusetyenzisiweyo	2				

6	Ukubakho kweeleyibheli zesondlo ngolwimi lwaloo mntu kunganceda na ukuqonda iileyibheli?		
Ewe	1	Hayi	2

7	Ukubakho kweeleyibheli kusetyenziswa ulwimi lwakho lokuqala kukwenza uqonde ngcono ngeeleyibheli zokutya?

Ewe	1	Hayi	2

8	Yeyiphi indlela, kwezi zilandelayo ezingaba negalelo kuwe ekusebenziseni ileyibheli zokutya kakhulu?	
8.1	Iileyibheli zokutya ezingeelwimi ezininzi	1
8.2	imfundiso ngokuleyibhila isodlo	2
8.3	IsiNgesi esisulungekileyo kwiileyibheli	3
8.4	Ezinye iindlela (Nceda nikeza imizekelo ngezantsi)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Enkosi ngokuthatha kwakho inxaxheba kolu vavanyo; kwaye oko kuhlonitshwa kakhulu).

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Iphephambuzo

Izigaba: A, B & C

Leliphephambuzo liyimfihlo futhi angeke waziwe, kanti futhi akudingekegama noma lwazi lwamuntu.

IPHEPHAMBUZO

Leli phephambuzo linezigaba ezintathu. Isigaba A sinemiyalelo yokuthi uyiphendula kanjani imibuzo yenhlolovo kanye nezibonelo zokuthi uligcwalisa kanjani iphephambuzo elisethebuleni. Isigaba B kudingeka ulwazi ngempilo nangenhlalo yomuntu; Isigaba C sinemibuzo ngenhlolovo kanti futhi uyacelwa ukuthi ukhethe impendulo eyodwa ezikweleni eziseduze kombuzo ngamunye. Sicela uqinisekise ukuthi ugcwalisa yonke imibuzo. Siyabonga ngesikhathi nokuzimbandakanya kwakho.

ISIGABA A: Imiyalelo:

- Umbuzo ngamunye onezinto ezahlukene okhetha kuzo
- Ngicela ukhethe impendulo eyodwa umbuzo ngamunye ngokuthi ufake u-X ebhokisini lempendulo oyikhethile.

Ithebula 3-3 lisinikeza isithombe sombuzo oyisibonelo nokuthi uyikhetha kanjani impendulo yakho.

Ithebula 3-3: Isibonelo sombuzo nokuthi uphendula kanjani

1	Kungabe kubaluleke kangakanani ukudla ukudla okunempilo?	Akubalulekile	1	Kubalulekile nje	2	Kubaluleke kakhulu	3

ISIGABA B: Kulesi sigaba uyacelwa ukuthi ubhale ulwazi ngempilo nangenhlalo yakho.

(a)	Ubulili		
Owesilisa	1	Owesifazane	2

(b)	Ubuzwe								
Omnyama	1	Ikhaladi	2	Omhlophe	3	Owomdabu Wasendiya	4	Obunye ubuzwe	5

(c)	Iminyaka					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Izinga lezemfundo						
Awufundanga	1	Amabanga 1 - 7	2	Amabanga 8 - 12	3	Imfundo yamabanga aphakeme	4

(e)	Imali oyiholayo ngonyaka				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Isimo Somshado								
Awushadile	1	Ushadile	2	Nihlala ngokuhlukana/nihlukanisile	3	Nikipitile	4	Umfelwa/Umfelokazi	5

(g)	Ukubekwa Kwezilimi Ngokuhambisana Kwazo		
Izilimi zesiSuthu	1	Izilimi zesiNguni	2

(h)	Yiliphi ulimi enilikhuluma ekhaya (ulimi lwebele)? (khetha elilodwa)												
isiSuthu	1	isiTshwan a	2	isiPedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	isiSwati	7

(i)	Yiliphi ulimi olusebenzisayo uma ukhuluma nomdeni kanye nezingane zakho?												
isiSuthu	1	isiPedi	2	isiTshwan a	3	isiZulu	4	isiXhosa	5	isiNdebele	6	isiTshonga	7
isiBhunu	8	isiNgisi	9	isiSwati	10	isiVenda	11						

(j)	Ucabanga ukuthi kubalulekile ukuthuthukisa X (ulimi olikhethe embuzweni (h) ukuze lisetshenziswe uma kukhulunywa ngebhizinisi?		
Yebo	1	Chabo	2

ISIGABA C: **Ukusetshenziswa Kwamalebula Okudla Okunomsoco**

1	Uyalisebenzisa ulwazi lwamalebula okudla okunomsoco?		
Yebo	1	Chabo	2

2	Kungabe ulisebenzisa kangakanani ulwazi lokudla okunomsoco olusemaphaketheni okudla ukwenza okulandelayo?								
2.1	Ukunquma ukuthi uthenga hlobo luni lokudla	Angilisebenzisi	1	Kuyathukela	2	Kuyenzeka nje	3	Ngaso sonke isikhathi	4
2.2	Ukunquma ngobungako bomsoco wokudla	Angilisebenzisi	1	Kuyathukela	2	Kuyenzeka nje	3	Ngaso sonke isikhathi	4

3	Kungabe uyaliqonda ulimi olusetshenziswa kumalebula okudla?		
Yebo	1	Chabo	2

4	Lingakanani izinga lokuqonda ulimi olisetshenziswa kumalebula okudla okunomsoco?	Angiliqondi	1	Ngiqonda okuncane	2	Ngiqonda okuningi	3

5	Uma kumbuzo wesi-4 uwuphendule ngokuthi uqonda kancane noma awuliqondi, kungabe yisiphi isizathu?		
Yingoba kusetshenziswe isiNgisi	1	Ukubanzima kolimi lwesiNgisi olusetshenzisiwe	2

6	Ukutholakala kwamalebula okudla okunomsoco ngolimi olulodwa kungasiza ekuqondeni kahle amalebula?		
Yebo	1	Chabo	2

7	Kungabe uma kungasetshenziswa ulimi lwakho kumalebula kungakusiza ukuthi wazi amalebula okudla?		
Yebo	1	Chabo	2

8	Kungabe iyiphi indlela kulezi ezilandelayo, engasiza ukuthi usebenzise amalebula okudla kakhulu?	
9.1	Amalebula okudla anezilimi ezahlukene	1
8.2	Ukufundiswa ngokulebulwa kokudla okunomsoco	2
8.3	Ukusetshenziswa kwesiNgisi esijwayelekile kumalebula	3
8.4	Ezinye izindlela (sicela ubhale izibonelo ngenzansi)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Siyabonga kakhulu ngokuthi uzimbandakanya kule nhlolovo.)

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Luhlamibuto

Tigaba: A, B & C

Loluhlamibuto angeke lwatiwe futsi luyimfihlo, akudzingeki ligama nobe imininngwne yemuntfu.

LUHLAMIBUTO

Loluhlamibuto lunetigaba letintsatfu.Sigaba A sineticondziso tekugcwalisa loluphenyo kufaka phakatsi sibonelo sekutsi ulugcwalisa njani luhlamibuto lolunelithebula.Sigaba B sinemininingwane yemuntfu neyemmango ledzingekako; Sigaba C sinemibuto yeluphenyo uyacelwa kutsi uphendvule ngekukhetsa yinye imphendvulo etikweleni letikhonjiswe eceleni kwembuto ngamunye. Uyacelwakutsi ucinisekise kutsi ugcwalise yonkhe imibuto. Siyabonga ngesikhatsi sakho nekuhlanganyela kwakho.

SIGABA A: Ticondziso:

- Umbuto ngamunye unetimphendvulo letinyenti
- Uyacelwa kutsi ukhetse imphendvulo yinye ngekufaka X esikweleni lesicondzene nenombolo eceleni kwemphendvulo yakho loyikhetseile.

Lithebula 3-3 likhombisa sibonelo seluhlamibuto nekutsi ukumakha njani lokukhetsile.

Lithebula 3-3: Sibonelo seluhlamibuto nekutsi uphendvula njani

1	Kunganani kubaluleka kwekudla lokunemphilo?	Kubaluleka lokuncane	1	Kubaluleka lokusemkhatsini	2	Kubaluleka lokukhulu	3

SIGABA B: Kulesigaba uyacelwa kutsi unikete imininingwane yemuntfu neyemmango.

(a)	Bulili								
Umdvuna	1	Umsikati	2						
(b)	Buhlanga								
Umnyama	1	Likhaladi	2	Umhlophe	3	Umndiya	4	Lokunye	5
(c)	Umnyaka								
	18-29 iminyaka	1	30-49 iminyaka	2	50 iminyaka+	3			
(d)	Lizinga Lemfundvo								
Angikayi esikolweni	1	Emabanga 1 - 7	2	Emabanga 8 - 12	3	Ngetulu kwesekhondari	4		
(e)	Lizinga lemali lengenako ngemnyaka								
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3				
(f)	Simo setemshado								
Awukashadi	1	Ushadile	2	nehlukene/nehlukanisile	3	Nihlala ndzawonye	4	Ushonelwe	5

(g)	Emacembu Etilwimi												
Tilwimi teSisutfu	1	Tilwimi temaNguni	2										
(h)	Nguluphi lulwimi lwakho lwasekhaya (lulwimi lwekucala)? (khetsa lunye kuphela)												
Sisutfu	1	Sitswana	2	Sipedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Siswati	7
(i)	Nguluphi lulwimi lolusebentisa uma ukhuluma nemndeni nebantfwana bakho?												
Sisutfu	1	Sipedi	2	Sitswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Sibhunu	8	Singisi	9	Siswati	10	Sivenda	11						
(j)	Ngabe ucabanga kutsi kubalulekile kutfutfukisa X (lulwimi lolukhetfwe embutweni (h)) kutsi lusetjentjentiselwe kuchumana ebhizinisini?												
Yebo	1	Cha	2										

SIGABA *C:* **Kusetjentiswa kwelebuli yetakhamtimba**

1	Ngabe uyawasebentisa emalebuli emininingwane yetakhamtimba?		
Yebo	1	Cha	2

2	Uyisebentisa kangaki imininingwane yetakhamtimba emaphaketheni ekudla ekwenteni lokulandzelako?								
2.1	Kuncuma kutsi nguliphi ligama lotalitsenga	Akwenteki	1	Akukavami	2	Ngalesinye sikhatsi	3	Sonkhe sikhatsi	4
2.2	Kutfola bungako betakhamtimba tekudla	Akwenteki	1	Akukavami	2	Ngalesinye sikhatsi	3	Sonkhe sikhatsi	4

3	Ngabe uyaluvisisa lulwimi lwelebuli yetakhamtimba?		
Yebo	1	Cha	2

4	Nguliphi lizinga lakho lekuvisisa lulwimi lwelebuli yetakhamtimba?	Angiluvisisi	1	Ngiluvisisa kancane	2	Ngiluvisisa kakhulu	3

5	Uma imphendvulo yakho embutweni 4 ingukancane nobe angiluvisisi, yini sizatfu?		
Kungoba kusetjentiswe Singisi	1	Kucaka kwekusetjentiswa kweSingisi	2

6	Kutfolakala kwemalebuli etakhamtimba langelulwimi lwemuntfu kungasita kuvisisa emalebuli?		
Yebo	1	Cha	2

7	Ngabe kusetjentiswa kwelulwimi lwakho lwasekhaya emalebulini kungangeta kuvisisa kwakho emalebuli ekudla?

Yebo	1	Cha	2

8	Nguyiphi indlela, kuletilandzelako, lengancedza kutsi usebentise kakhulu emalebuli ekudla?	
8.1	Emalebuli ekudla langetilwimi letinyenti	1
8.2	Kufundziswa ngemalebuli etakhamtimba	2
8.3	Emalebuli langeSingisi lesikahle	3
8.4	Letinye tindlela (uyacelwa kutsi unikete tibonelo ngentasi)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Siyabonga ngekuhlanganyela kwakho kuleluphenyo; kubongeka kakhulu.

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Lenaneopotšišo

Karolo: A, B le C

Lenaneopotšišo le ke la hlokaina gape ke la sepheri, e bile ga go hlokagale leina goba tshedimošo ya gago.

LENANEOPOTŠiŠO

Lenaneopotšišo le na le dikarolo tše tharo. Karolo ya A e na le ditaelo tša go feleletša dinyakišišo go tsenyeletša mehlala ya go feleletša lenaneopotšišo leo le filwego. Karolo ya B e na le tshedimošo ya tša maphelo le bodulo tšeo di lokilego. Karolo ya C e na le dipotšišo tša dinyakišišo gomme go kgopelwa gore o swaye ka go kgetha karabo ye tee mo dibolokong tše di bontšhitšweng go lebana le potšišo ye nngwe le ye nngwe. Hle, netefatša gore o araba dipotšišo ka moka.

KAROLO YA A: Ditaelo:

- Potšišo ye nngwe le ye nngwe e na le dikgetho tše mmalwa
- Hle, kgetha ye tee go ya ka potšišo ka go dira X mo bolokong ya maswanedi go ya ka kgetho ya gago.

Lenaneo la 3-3 le bontšha sekao sa potšišo le mokgwa wa go swaya kgetho ya gago.

Lenaneo la 3-3: Mohlala wa potšišo le go re o araba bjang.

1	Mohola wa go ja dijo tšeo di lokilego ke eng?	O monnye	1	O o mogareng	2	O o kwa godimo	3

KAROLO YA B: Mo karolong ye o kgopelwa go fa tshedimošo ya maphelo le bodulo.

(a)	Bong								
Botona	1	Bosadi	2						

(b)	Morafe								
Mothomoso	1	Wa mmala	2	Mothomošweu	3	Mointiya	4	Ba bangwe	5

(c)	Megwaga					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Maemo a thuto						
Ba ba sa tsenang sekolo	1	Dikereiti 1 - 7	2	Dikereiti 8 - 12	3	Thuto ya godimo	4

(e)	Mogolo wa ngwaga				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Maemo a lenyalo								
Yoo o sa nyalwago	1	Yoo a nyetšweng	2	Yoo a hladilego	3	Badulammogo	4	Mohlologadi/mohlolo	5

(g)	Sehlopha sa maleme												
Maleme a Sesotho	1	Maleme a Nguni	2										
(h)	Leleme la gago la gae ke lefe? (Kgetha le letee)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Siswati	7
(i)	O diriša leleme lefe ge o bolela le ban aba gago le ba lapa?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Afrikaans	8	English	9	Siswati	10	Tshivenda	11						
(j)	O nagana gore go bohlokwa go hlabolla X (leleme leo le kgethilwego potšišong ya (h)) go dirišwa mo poledišanong?												
Ee	1	Aowa	2										

KAROLO YA *C:* Tirišo ya maswao a phepo yeo e lokilego

1	A o diriša maswao a phepo yeo e lokilego?		
Ee	1	Aowa	2

2	O diriša tshedimošo yeo e lego mo diphuthelwaneng tša dijo ga kae go dira tše di latelang?								
2.1	Go nagana ka leswao la thekišo	Le ga tee	1	Ka sewelo	2	Dinako tše dingwe	3	Ka mehla	4
2.2	Go lebelela maemo a dijo tšeo di lokilego	Le ga tee	1	Ka sewelo	2	Dinako tše dingwe	3	Ka mehla	4

3	A o kwešiša leleme leo le dirišwago mo maswaong a phepo yeo e lokilego?		
Ee	1	Aowa	2

4	Maemo a gago a go kwešiša maswao a phepo yeo e lokilego ke afe?	Ga ke kwešiše	1	Ke kwešiša ga nnyane	2	Ke a kwešiša	3
5	Ge karabo mo potšišong ya bo 4 e le 'go le ga nnyane'goba 'go se kwešiše', na ke ka lebaka la eng?						
Sekgowa seo se dirišitšwego	1	Maemo a godimo a sekgowa se se dirišitšweng	2				

6	A go ba gona ga maswao a phepo yeo e lokilego ka leleme la gago go ka go thuša go kwešiša?		
Ee	1	Aowa	2

7	A tirišo ya leleme la gago e tla go o thuša go kwešiša maswao a phepo yeo e lokilego?

Ee	1	Aowa	2

8	Na ke magato afe magareng ga a a latelago ao a ka go thušang go diriša maswao gantši?	
8.1	Maswao a dijo ka malementši	1
8.2	Thuto ka maswao a phepo yeo e lokilego	2
8.3	Sekgowa seo se kwešišegago mo maswaong a phepo ye e lokilego	3
8.4	Magato a mangwe (Hle, efa mehlala mo tlase)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Re leboga go kgatha tema gag ago diphathišišong tše. Re leboga go menagane).

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Lenanepotso

Karolo: A, B le C

Lenanepotso lena le ka se phatlalatswe e bile ke sephiri, mme ha o hlokehe lebitso kapa dintlha tse hlokolosi ka wena.

LENANEPOTSO

Lenanepotso lena le na le dikarolo tse tharo. Karolo ya A e na le ditaelo tsa ho nka karolo dipatlisisong ho kenyeletswa mohlala wa ho tlatsa lenanepotso le o ho fanweng ka lona. Karolo ya B e hloka o tlatse dintlha ka tsa bophelo le bodulo, Karolo ya C e na le dipotso tsa dipatlisiso mme ho koptjwa o nke karolo ka ho kgetha karabo e le nngwe dibolokong tse bontshitsweng ho bapa le potso e nngwe le e nngwe. Ka kopo netefatsa hore o araba dipotso tsohle.

KAROLO YA A: Ditaelo:

- Potso e nngwe le e nngwe e na le dikgetho tse mmalwa
- Ka kopo kgetha e le nngwe ho ya ka potso ka ho etsa X bolokong bo tshwanetseng ho ya ka kgetho ya hao.

Lenane la 3-3 le bontsha mohlala wa potso le mokgwa wa ho tshwaya kgetho ya hao.

Lenane la 3-3: Mohlala wa potso le ho re o araba jwang.

1	Molemo wa ho ja dijo tse itekanetseng ke ofe?	O monyane	1	O mahareng	2	O hodimo	$\boxtimes$ 3

KAROLO YA B: Karolong e o kopuwa ho fana ka dintlha tsa bophelo le bodulo.

(a)	Bong		
Botona	1	Botshehadi	2

(b)	Mofuta								
Mothomotsho	1	Lekhalate	2	Mothomosweu	3	Mointiya	4	Ba bang	5

(c)	Dilemo					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Boemo ba thuto						
Ba sa kenang sekolo	1	Dikgerata 1 – 7	2	Dikgerata 8 - 12	3	Thuto e phahemeng	4

(e)	Mokgolo ka selemo				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Maemo a lenyalo								
Ha ke a nyalwa	1	Ke nyetswe	2	Ke hladuwe	3	Badulammoho	4	Ke mohlolohadi	5

(g)	Dihlopa tsa puo		
Dipuo tsa Sesotho	1	Dipuo tsa maNguni	2

(h)	Puo ya hao ya hae ke efe? (Kgetha e le nngwe)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	siSwati	7

(i)	O sebedisa puo efe ha o bua le bana ba hao le ba haeno?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Afrikaans	8	English	9	siSwati	10	Tshivenda	11						

(j)	O nahana hore ho bohlokwa ho ntshetsapele X (puo e kgethuweng potsong ya (h)) ho sebedisetswa dipuisanong kgwebong?		
Eya	1	Tjhe	2

KAROLO YA *C:* Tshebediso ya matshwao a phepontle

1	O sebedisa matshwao a phepontle?		
Eya	1	Tjhe	2

2	O sebedisa tlhahisoleseding e diphuthelanong tsa dijo ha kae ho etsa tse latelang?								
2.1	Ho kgetha mofuta wa dijo	Le ka mohla	1	E seng ha ngata	2	Nako e nngwe	3	Ka mehla	4
2.2	Ho sheba maemo a boleng ba dijo	Le ka mohla	1	E seng ha ngata	2	Nako e nngwe	3	Ka mehla	4

3	O utlwisisa puo e sebediswang matshwaong a phepontle?		
Eya	1	Tjhe	2

4	Maemo a hao kutlwisisong ya matshwao a phepontle?	Ha ke utlwisisi	1	Ke utlwisisa ha nyane	2	Ke a utlwisisa	3

5	Ha karabo potsong ya bo 4 e le 'ke utlwisisa ha nyane' kapa 'ha ke utlwisisi', lebaka ke lefe?		
Sekegowa se sebedisitsweng	1	Maemo a phahameng a sekgowa se sebedisitsweng	2

6	Na hoba teng ha matshwao a phepontle ka puo ya hao ho ka o thusa ka kutlwisiso?		
Eya	1	Tjhe	2

7	Na tshebediso ya puo ya hao e tla o thusa ho utlwisisa matshwao a phepontle?		
Eya	1	Tjhe	2

8	Ke mohato ofe ho e latelang e ka o kgothalletsang ho sebedisa matshwao a phepontle kgafetsa?	
8.1	Matshwao a dijo ka puo tse ngata	1
8.2	Thuto ka matshwao a phepontle	2
8.3	Sekgowa se bonolo matshwaong a phepontle	3
8.4	Mehato e meng (ka kopo fana ka mehlala ka fatshe)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Diteboho bakeng sa ho kenya letsoho phuputsong ena; re lebohile ho menahane)

MULTILINGUAL NUTRITION LABELLING AND CONSUMERS' HEALTH IN SOUTH AFRICA: AN IMPACT ASSESSMENT

M Tech study

Lehlohonolo Motake

Student number: 211379855

Email address: Lehlohonolo.motake@dac.gov.za

Tel number (w): 012 441 3819

Cell number: 073 357 3208

Lenanepotso

Karolo: A, B le C

Lenanepotso le ke tshedimosetso ya sephiri mme ga go tlhokege maina kgotsa tshedimosetso ya gago.

LENANEPOTSO

Lenanepotso le na le dikarolo tse tharo. Karolo ya A e na le ditaelo tsa go feleletsa dipatlisiso go tsenyeletsa dikao tsa go feleletsa lenanepotso le le neetsweng. Karolo ya B e na le tshedimosetso ya tsa botshelo le bonno tse di tlhokegang, Karolo ya C e na le dipotso tsa dipatlisiso mme go kopiwa gore o tshwaele ka go tlhopha karabo e le nngwe mo dibolokong tse di bontshitsweng go bapa le potso nngwe le nngwe. Tsweetswee netefatsa gore o feleletsa dipotso tsotlhe.

KARAROLO YA A: Ditaelo:

- Potso nngwe le nngwe e na le boitlhopelo bo le mmalwa
- Tsweetswee tlhopha e le nngwe go ya ka potso ka go dira X mo bolokong e e matshwanedi go ya ka tlhopho ya gago.

Lenaneo la 3-3 le bontsha sekao sa potso le mokgwa wa go tshwaya tlhopho ya gago.

Lenaneo la 3-3: Sekao sa potso le go re o araba jang.

1	Molemo wa go ja dijo tse di itekanetseng ke eng?	O monnye	1	O o mogareng	2	O o kwa godimo	$\boxtimes$ 3

KAROLO YA B: Mo karolong e o kopiwa go neela tshedimosetso ya botshelo le bonno.

(a)	Bong		
Botona	1	Bonamagadi	2

(b)	Lotso								
Mothomotsho	1	Lekhalate	2	Mothomosweu	3	Mointiya	4	Ba bangwe	5

(c)	Dingwaga					
	18-29yrs	1	30-49yrs	2	50yrs+	3

(d)	Boemo jwa thuto						
Ba ba sa tsenang sekolo	1	Digerata 1 - 7	2	Digerata 8 - 12	3	Thuto e kgolwane	4

(e)	Tuelo ka ngwaga				
R10 000 – R99 000	1	R100 000 – R199 000	2	R200 000+	3

(f)	Maemo a lenyalo								
Yo o sa nyalwang	1	Yo o nyetsweng	2	Yo o tlhadilweng	3	Bannammogo	4	Yo o tlhokofaletsweng	5

(g)	Ditlhopha tsa puo												
Dipuo tsa Sesotho	1	Dipuo tsa maNguni	2										
(h)	Puo ya gago ya ko gae ke efe? (Tlhopha e le nngwe)												
Sesotho	1	Setswana	2	Sepedi	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Siswati	7
(i)	O dirisa puo efe fa o bua le bana ba gago le ba gaeno?												
Sesotho	1	Sepedi	2	Setswana	3	isiZulu	4	isiXhosa	5	isiNdebele	6	Xitsonga	7
Afrikaans	8	English	9	Siswati	10	Tshivenda	11						
(j)	O nagana gore go botlhokwa go ribolola X (puo e tlhopilweng potsong ya (h)) go diriswa mo puisanong ya kgwebo?												
Ee	1	Nnyaa	2										

<u>KAROLO YA *C:*</u> Tiriso ya matshwao a phepo e e siameng

1	A o dirisa matshwao a phepo e e siameng?		
Ee	1	Nnyaa	2

2	O dirisa tshedimosetso e e mo diphuthelwaneng tsa dijo ga kae go dira tse di latelang?								
2.1	Go nagana ka letshwao la thekiso	Le e seng	1	E seng ka gale	2	Nako nngwe	3	Ka metlha	4
2.2	Go lebelela maemo a dijo tse di siameng	Le e seng	1	E seng ka gale	2	Nako nngwe	3	Ka metlha	4

3	A o tlhaloganya puo e e diriswang mo matshwaong a phepo e e siameng		
Ee	1	Nnyaa	2

4	Maemo a gago a go tlhaloganya matshwao a phepo e e siameng ke afe?	Ga ke tlhaloganye	1	Ke tlhaloganya go le gonnye	2	Ke a tlhaloganya	3

5	Fa karabo mo potsong ya bo 4 e le 'go le gonnye' kgotsa 'go setlhaloganye', lebaka ke eng?		
Sekgowa se se dirisitsweng	1	Maemo a a kwa godimo a sekgowa se se dirisitsweng	2

6	A go nna teng ga matshwao a phepo e e siameng ka puo ya gago go ka go thusa ka go tlhaloganya?		
Ee	1	Nnyaa	2

7	A tiriso ya puo ya gago e tla go o thusa go tlhaloganya matshwao a phepo e e siameng?

Ee	1	Nnyaa	2

8	Ke tekanyetso efe mo go tse di latelang tse di ka go thusang go dirisa matshwao gantsi?	
8.1	Matshwao a dijo ka puodintsi	1
8.2	Thuto ka matshwao a phepo e e siameng	2
8.3	Sekgowa se se tlhaloganyegang mo matshwaong a phepo e e siameng	3
8.4	Ditekanyetso tse dingwe (tswetswe neela dikao mo tlase)	4

8.4.1		9.4.3	
8.4.2		9.4.4	

(Re lebogela go tsaya karolo mo dipatlisisong tse, re lebogile go menagane)

APPENDIX E: INFORMATION LEAFLETS

Tshwane University of Technology

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FACULTY OF HUMANITIES

DEPARTMENT OF APLLIED LANGUAGES

INFORMATION LEAFLET

PROJECT TITLE:
<u>Multilingual nutrition labelling and consumers' health in South Africa: An impact assessment</u>

Primary investigator: Mr Lehlohonolo Motake, BTech (Language Practice)
Study leader: Prof. Johan van Niekerk, Department of Applied Languages, Tshwane University of Technology, Pretoria
Co-study leaders: 1st Co-supervisor: Dr Carina KLEYNHANS.
2nd Co-supervisor: Dr Mary MAKGATO: Department of Applied Languages, Tshwane University of Technology, Pretoria.

Dear Research Participant

You are invited to participate in a research study that forms part of my formal MTech-studies. This information leaflet will help you to decide if you would like to participate. Before you agree to take part, you should fully understand what is involved. You should not agree to take part unless you are completely satisfied with all aspects of the study.

WHAT IS THE STUDY ALL ABOUT?

The study aims to source out innovative measures to try and aid in improving the health status of South Africans. In so doing, the study intends to look at the impact language used on nutrition labelling has on the food choices thus impacting on the degrading health in South Africa.

The study assesses the concept of multilingual labelling and seeks to prove that multilingual labelling, using indigenous languages, can improve consumers' use of nutrition information.

WHAT WILL YOU BE REQUIRED TO DO IN THE STUDY?

If you decide to take part in the study, you will be required to do the following:

- To sign this informed consent form

- To contribute in a scheduled interview based on nutrition labelling. The interview will seek from you responses regarding questions to do with nutrition labelling and its usage by your clients as a dietician or nutritionist.
- You will be asked to respond to questions about labelling language policy and the impact of the policy to non-English speaking users.
- The interview should not take more than 20 minutes to be carried out.

ARE THERE ANY CONDITIONS THAT MAY EXCLUDE YOU FROM THE STUDY?

You will not be eligible to participate in this study if you are an English first language speaker.

WHAT ARE THE RISKS INVOLVED IN THIS STUDY?orCAN ANY OF THE STUDY PROCEDURES RESULT IN PERSONAL DISCOMFORT OR INCONVENIENCE?**

Interviews: The study and procedures involve no foreseeable physical discomfort or inconvenience to you, your family or the community during and after the interview process. Due to the nature of the questions, you will not experience any emotional discomfort.

WHAT ARE THE POTENTIAL BENEFITS THAT MAY COME FROM THE STUDY?

The benefits of participating in this study are:

- You will make a contribution towards establishing barriers caused by language used in labelling food products and help in providing solution to those barriers of communication between consumers and the products they purchase.

WILL YOU RECEIVE ANY FINANCIAL COMPENSATION OR INCENTIVE FOR PARTICIPATING IN THE STUDY?

Please note that you **will not** be paid to participate in the study.

WHAT ARE YOUR RIGHTS AS A PARTICIPANT IN THIS STUDY?

Your participation in this study is entirely voluntary. You have the right to withdraw at any stage without any penalty or future disadvantage whatsoever. You don't even have to provide the reason/s for your decision.

HOW WILL CONFIDENTIALITY AND ANONYMITY BE ENSURED IN THE STUDY?

Only the researcher and the supervisors will have access to the filled-out questionnaires. Your answers will be totally anonymous and your identity will not be revealed under any circumstance. Also, nobody outside the study panel will be able to connect any answer to you in any recognisable way. The results of this study might be published in a scientific journal and/or presented at scientific meetings, but again without revealing the identity of any research participant. The original questionnaires and/or interview recording tapes will be stored in a secure place and not shared with any other person without your permission.

IS THE RESEARCHER QUALIFIED TO CARRY OUT THE STUDY?

The researcher is a qualified language practitioner and he also received training in Research

Methodology from the Central University of Technology, Free State. The researcher is under the supervision of a qualified and experienced Professor in the language field who has completed many researches.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

Yes. The Faculty Higher Degrees Committee and the Research Ethics Committee of the Tshwane University of Technology have approved the formal study proposal.

WHO CAN YOU CONTACT FOR ADDITIONAL INFORMATION REGARDING THE STUDY?

The primary investigator, Mr L Motake, can be contacted during office hours at Tel (012) 441-3819, or on his cellular phone at 073 357-3208. The study leader, Prof. Johan van Niekerk, can be contacted during office hours at Tel (012) 382-5497/5410. Should you have any questions regarding the ethical aspects of the study, you can contact the chairperson of the TUT Research Ethics Committee, Dr WA Hoffmann, during office hours at Tel (012) 382-6265/46.

DECLARATION: CONFLICT OF INTEREST

There will be no conflict of interest as the final results of the study will not need written and verbal approval from any source to be published.

A FINAL WORD

Your cooperation and participation in the study will be greatly appreciated. Please sign the underneath informed consent if you agree to participate in the study. In such a case, you will receive a copy of the signed informed consent from the researcher.

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DEPARTMENT OF APLLIED LANGUAGES

INFORMATION LEAFLET

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Multilingual nutrition labelling and consumers' health in South Africa: An impact assessment

Primary investigator: Mr Lehlohonolo Motake, BTech (Language Practice)

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Co-study leaders: 1st Co-supervisor: Dr Carina KLEYNHANS.

2nd Co-supervisor: Dr Mary MAKGATO: Department of Applied Languages, Tshwane University of Technology, Pretoria.

Dear Research Participant

You are invited to participate in a research study that forms part of my formal MTech-studies by responding to the questionnaire to be provided. This information leaflet will help you to decide if you would like to participate. Before you agree to take part, you should fully understand what is involved. You should not agree to take part unless you are completely satisfied with all aspects of the study.

WHAT IS THE STUDY ALL ABOUT?

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The study assesses the concept of multilingual labelling and seeks to prove that multilingual labelling, using indigenous languages, can improve consumers' use of nutrition information.

WHAT WILL YOU BE REQUIRED TO DO IN THE STUDY?

If you decide to take part in the study, you will be required to do the following:

- To sign this informed consent form
- To complete a questionnaire based on nutrition labelling. You will be asked to respond to questions regarding your use of nutrition information, understanding of the language used, and your language preference on food labels. It should not take more than 20 minutes to complete the questionnaire.

ARE THERE ANY CONDITIONS THAT MAY EXCLUDE YOU FROM THE STUDY?

You will not be eligible to participate in this study if you are an English first language speaker.

WHAT ARE THE RISKS INVOLVED IN THIS STUDY?or CAN ANY OF THE STUDY PROCEDURES RESULT IN PERSONAL DISCOMFORT OR INCONVENIENCE?

Questionnaires: The study and procedures involve no foreseeable physical discomfort or inconvenience to you, your family or the community during the time of and after completing the questionnaire. Due to the nature of the questions, you will not experience any emotional discomfort.

WHAT ARE THE POTENTIAL BENEFITS THAT MAY COME FROM THE STUDY?

The benefits of participating in this study are:

- You will make a contribution towards establishing barriers caused by language used in labelling food products and help in providing solution to those barriers of communication between consumers and the products they purchase.

WILL YOU RECEIVE ANY FINANCIAL COMPENSATION OR INCENTIVE FOR PARTICIPATING IN THE STUDY?

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HOW WILL CONFIDENTIALITY AND ANONYMITY BE ENSURED IN THE STUDY?

Only the researcher and the supervisors will have access to the filled-out questionnaires. Your answers will be totally anonymous and your identity will not be revealed under any circumstance. Also, nobody outside the study panel will be able to connect any answer to you in any recognisable way. The results of this study might be published in a scientific journal and/or presented at scientific meetings, but again without revealing the identity of any research participant. The original questionnaires will be stored in a secure place and not shared with any other person without your permission.

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DECLARATION: CONFLICT OF INTEREST

There will be no conflict of interest as the final results of the study will not need written and verbal approval from any source to be published.

A FINAL WORD

Your cooperation and participation in the study will be greatly appreciated. Please sign the underneath informed consent if you agree to participate in the study. In such a case, you will receive a copy of the signed informed consent from the researcher.

APPENDIX F: INFORMED CONSENT FORM

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CONSENT

I hereby confirm that I have been adequately informed by the researcher about the nature, conduct, benefits and risks of the study. I have also received, read and understood the above written information. I am aware that the results of the study will be anonymously processed into a research report. I understand that my participation is voluntary and that I may, at any stage, without prejudice, withdraw my consent and participation in the study. I had sufficient opportunity to ask questions and of my own free will declare myself prepared to participate in the study.

Research participant's name: ____________________ (Please print)

Research participant's signature: _______________________

Date: ________

Researcher's name: _____________________ (Please print)

Researcher's signature: ________________________

Date: ________

VERBAL CONSENT

(Applicable when participants cannot read or write)

I hereby declare that I have read and explained the contents of the information sheet to the research participant. The nature and purpose of the study were explained, as well as the possible risks and benefits of the study. The research participant has clearly indicated that he/she will be free to withdraw from the study at any time for any reason and without jeopardizing his/her relationship with the health care team.

I hereby certify that the research participant has verbally agreed to participate in this study.

Research participant's name: ____________________ (Please print)

Researcher's name: _____________________ (Please print)

Researcher's signature: ________________________

Date: _______

APPENDIX G: ETHICS REVIEW

Tshwane University
of Technology
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Faculty of Humanities

Office of the Dean

FREC CODE: FREC/APL/STD/2012/2

TO: DRIC CHAIRPERSON – APPLIED LANGUAGES

FROM: DR MS MUKHOLA
EXEC DEAN: FACULTY OF HUMANITIES

DATE: OCTOBER 31, 2012

RE: ETHICS REVIEW: Motake, L.V.

Decision: Approved

TITLE: MULTI LINGUAL NUTRITION LABELLING AND CONSUMERS' HEALTH IN SOUTH AFRICA: AN IMPACT ASSESSMENT.

In reviewing the proposal, the following comments/notes, emanating from the meeting, are tabled for your consideration.

- As the project involves doesn't involve TUT students and/or staff, it should **be submitted to the central REC for notification only.**
- There were no ethical issues, therefore **approval is granted**

Sincerely,

DR. MS MUKHOLA
EXECUTIVE DEAN: FACULTY OF HUMANITIES
On behalf of Dr Mukhola

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