

**Local Food Choices and Nutrition: A Case Study of  
*Amarewu* in the FET Consumer Studies Curriculum**

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**by**

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## ABSTRACT

This case study examines the introduction of Indigenous Knowledge (IK) in the Consumer Studies curriculum of Further Education and Training (FET). The research is centred on the use of enquiry methodologies involving learners observing parent demonstrations of the making of '*amarewu*' and other activities centred on the propositional knowledge dealing with fermentation in the Consumer Studies curriculum.

The research involved a review of curriculum documents, participant observation of a demonstration of local food practices related to '*amarewu*' and learner research activities and interviews to review the developing learning interactions. The learning activities were focused on the learners' researching the cultural and nutritional value of '*amarewu*' and included an audit of food consumed in the community

What transpired from this study was that working with IK in the curriculum is possible. The inclusion of IK is not only possible but desirable and has exciting possibilities for relevance in contemporary education. The active involvement in parent demonstration engaged the learners in IK in their mother tongue, therefore indigenous knowledge has relevance. The curriculum concepts also enhanced the engagement by giving rise to more relevant knowledge and a respect for cultural matters. Intergenerational capital and subject concepts also enabled learners to engage with local nutritional problems and to come up with practical solutions.

This study demonstrates how IK intergenerational capital in combination in combination with curriculum concepts (subject knowledge capital) can enhance relevance and the learners' real engagement with local health and nutritional problems. Not only did the learners have culturally valued knowledge, but also knowledge that has a practical grasp of the problem and that they could use to engage relevant issues. These two views of knowledge join in learning and can be used to address health issues. I therefore recommend connection of cultural knowledge and conceptual knowledge to strengthen the revitalisation of cultural heritage, thus equalising it to the modern patterns of life and enhancing meaningful curriculum orientation.

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I dedicate this study to all the teachers of the Consumer Studies who would be faced with the challenge of implementing the National Curriculum Statements in Further Education and Training band in 2006.

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## **LIST OF ACRONYMS/ABBREVIATIONS**

C2005	Curriculum 2005
DA	Document Analysis
DoE	Department of Education
DoE EC	Department of Education Eastern Cape
EI	Educators Interview
FG	Focus group
FET	Further Education and Training
ILCM	Interview Local Community Member
IK	Indigenous Knowledge
IKS	Indigenous Knowledge Systems
ISA	Interview Subject Advisor
LAct (1, 2)	Learner Activity
NATED 550	National Education Reports 550
NCS	National Curriculum Statement
OBE	Outcomes-Based Education
R (1, 2)	Respondent 1, 2, 3, 4

## **CHAPTER 1 – INTRODUCTION**

### **1.1 Introduction**

This chapter begins by introducing the context in which the research took place. It discusses the orientation of the research process, detailing the main focus, the research question and the goals of the study. Finally, it provides an overview of each chapter.

The study was conducted in an Eastern Cape township high school, with a particular focus in Further Education and Training (FET) and in particular the Consumer Studies curriculum. My concern was curriculum development because the South African education system is in a transitional stage introducing new national curriculum statements (NCS) at FET band as from 2006. Embedded in this new curriculum is an Outcomes-Based Education (OBE) approach designed to redress past colonial and apartheid imbalances and to transform society. Within this process of curriculum change and social transformation, my research interest became the principles underpinned in the NCS and a valuing of African Indigenous Knowledge. My aim in this study was not simply to explore African philosophies, but to look for ways of working with indigenous knowledge and the existing propositional knowledge of the curriculum.

### **1.2 Introduction to National Curriculum Statements**

The national curriculum statements at FET band came after a long waiting with the introduction of Curriculum 2005 (C2005) in 1998 (Interim Committee report, 2000). The implementation of the new C2005 was done simultaneously at three grades, i.e. the foundation phase, and with gradual implementation in other grades i.e. the intermediate phase within consecutive years up to the senior phase, the i.e. grades 7-9. By 2001, the implementation of the new curriculum was clearly in trouble and a review was conducted by the special interim committee. The outcome was a Revised National Curriculum Statement for General Education and Training (GET). By the time it came to the introduction of NCS at FET, many lessons had been learnt and flaws were identified in the previous C2005, which led to a halt in implementing the new curriculum in FET band (DoE, 2002).

The extended transition period led to phasing in of OBE in the curriculum as an approach to teaching the old NATED 550 syllabus in FET classes of 2002. The phasing-in, of OBE did not come without any challenges. For example, some teachers felt that OBE had failed and were reluctant to try it as an approach to the old syllabus.

The introduction of the National curriculum Statements brought along a lot of changes in many subjects, a reduction of subjects from 135 nationwide to only 29 subjects that are to be taught at the FET level as from 2006. This is one of the major changes that the new curriculum brought (DoE EC, 2005). The change occurred within the remaining subjects' content as some of the subjects have new content.

Consumer Studies is one of the subjects that has been affected by the transition, with approximately 70% of the content being changed. As the name suggests, Consumer Studies has to do with learning about economic activities and consumer choices. Against this brief sketch of some of the challenges and struggles of curriculum change and social transformation, my concern was with a valuing of indigenous knowledge practices in Consumer Studies. That is why this study is focused on what it might mean to introduce and work with indigenous knowledge dealing with food and nutrition practices in the curriculum.

### **1.3 Developing a research question**

The focus of the study is an attempt to work with Indigenous Knowledge within the environmental and sustainability focus in Consumer Studies FET curriculum. My concern here was to study methodologies to be used when working with IK in a school curriculum setting.

I chose to work with *amarewu* as an example of a traditional food that is now sold as a product in supermarkets and shops. My concern was to unpack the methodologies that might create possibilities for mobilising and working with Indigenous Knowledge (IK) within the curriculum context.

## **1.4 Clarifying the research goals**

To undertake this work I set the following goals for the study:

- (1) To unpack and clarify the learning outcomes and assessment standards relevant to context.
- (2) To observe the traditional preparation of the product (parent demonstration) as one methodology to be considered by teachers.
- (3) To develop a learning programme unit and learner support material (LSM) on the topic.
- (4) To probe and clarify processes and issues that teachers might need to be aware of when working with IK within the Consumer Studies curriculum.

## **1.5 My role in the Consumer Studies curriculum**

I am a teacher at Nosizwe High School responsible for teaching Consumer Studies. The nature of the curriculum requires implementing a technical curriculum and the critical curriculum is that the socio-cultural context has to be considered when working with the curriculum. The use of the socio-cultural context has been enabled by national educational transformation as there is flexibility for the critical interest curriculum. By critical interest, I mean that the curriculum now does not focus only on the structural context, i.e. syllabus, school, etc., but also focuses on the socio-cultural context beyond the school and education, i.e. demographic, social, traditions and ideologies are considered (Cornbleth, 1990).

My role therefore is to facilitate learning processes and to facilitate new curriculum implementation, with a particular focus in a contextually shaped curriculum (Cornbleth, 1990). The other role that I had to play was to facilitate and mediate learning and continuously develop activities, which means that I develop learning programmes. Having developed learning programmes, I have to plan an assessment for learners so as to give them feedback on their learning. If an assessment is planned, it means that activities are designed and these will vary according to the content and socio-cultural issues. The role that has to be played by each teacher in the new curriculum is to work with the principles embedded in the curriculum as a response to redressing the legacy of apartheid and implement social change. One of the principles which is also the main focus of this study is to find ways of working with indigenous ways of knowing

as a way of acknowledging the value of the indigenous people's associated ways of knowing. Such engagement with African philosophies would contribute to the revitalization of cultural heritage and moral regeneration especially for the youth of this country.

### **1.6 Orientation of the thesis**

This is an interpretive case study meant to explore and interpret teaching-learning and knowledge creation curriculum development in context. The interpretative paradigm has been chosen so as to be able to interpret the indigenous ways of knowing that have been observed in learning context used in the study. This also aimed at focussing on the interpretation of the participants' role and the sharing of their knowledge about these indigenous practices and what significance these practices have in their lives. The voices of the local people and the learners themselves as members of community would also be heard by use of an interpretative paradigm.

The aim was to create meaningful learning spaces and information sharing sessions between learners and local community members. That aimed at exploring the role that local people in the community people could play in teaching/learning and the knowledge creation process, and what lessons we could learn and adopt as teachers from the ways in which learning takes place.

### **1.7 Overview of the study**

This chapter has served to introduce the research context of the study including the research question and its goals. The chapters that follow are:

**Chapter Two** examines curriculum change in the South African context. It also explores the value of local knowledge and how this relates to curriculum change and development, by discussing the local context. The global stance on indigenous knowledge is also discussed and existing work on indigenous knowledge is reviewed. The notion of Curriculum contextualisation informing the process of IK mobilisation is also discussed. The significance of IK in Consumer Studies and the content with regards to food is relevant.

As the content chosen was sustainable food choices, the chapter then discusses nutrition, food choices, culture and the historicity of *amarewu* as a fermented food product and the function of fermentation in food. The role that I have to play as the teacher, i.e. to be designer of materials is discussed. Finally, the use of language in learning is discussed.

**Chapter Three** outlines the research design and discusses the methods used to investigate processes that other teachers can use to mobilise indigenous knowledge. The research orientation of the study is also discussed, i.e. the interpretative case study and how this relates to this research question and goals. In this chapter I discuss how data was generated through the use of multiple data sources and how the data was analysed. Lastly the chapter provides insights into research ethics, validity and trustworthiness of the research.

**Chapter Four** focuses on the stages followed, data gathered and the emerging issues. It explores the stage of curriculum analysis and how this informed the approach I took in my work with indigenous knowledge in the curriculum. It examines observation as another stage of mobilising IK into the curriculum and explores further the use of context for learning and the involvement of community members in learning situations. It also explored the development of learner support material in the form of learner activities and what would come out of such activities. Then, lastly, the role played by the teacher is also shared.

**Chapter Five** is a presentation of findings in the light of the views of curriculum theorists such as Cornbleth (1990). The findings that are discussed in this chapter have been drawn from chapter four and provide a deeper level of analysis. The first layer of data analysis includes a review of curriculum development and associated theories. Relevance of learning outcomes (LO's) and assessment standards (AS's) and observation of a demonstration as the possible tool in understanding local experiences are also discussed. The role of parents in educative processes is discussed and the value of local knowledge.

The relevance of contextualised content is also discussed and other issues like the cultural significance of such content. Other cultural issues that may affect meaningful learning such as gender stereotypes and language and its relevance for learning are

discussed. Intergenerational health and nutrition, benefits of local knowledge in regard to skills development, entrepreneurial or economic benefits are some of the issues shared. Development of Learner Support Material (LSM), learner activities and the reviewing of learning by learners and reviewing the teacher's role working with IK are the last issues discussed in the chapter, all of which deal with the data that emerged in this study.

**Chapter Six** concludes the study, by outlining the summary of the study and the recommendations based on the findings, as discussed in chapter five. It then recommends what teachers are to be aware of with regards to the new curriculum as a contextualised social process. Other recommendations are directed to future researchers who might have similar interests of working with indigenous knowledge, to other teachers who are teaching the same subject and even to those who would like to use this study as a reference.

## **1.8 Concluding Summary**

I have introduced the research context by providing the background to the study and outlined the orientation to the research questions and goals. I have discussed my interest in this topic and explained my role that had informed my interest. I also provided the background on curriculum transformation in the South African context. Then, lastly, I gave an outline of what each chapter covers.

The next chapter provides the background of curriculum development work and how it relates to curriculum development in the further education and training band, with particular emphasis on the indigenous knowledge curriculum development focus.

## CHAPTER 2:

### Literature Review: Indigenous Knowledge, Curriculum, Nutrition and Materials

#### 2.1 Introduction

The last decade has brought significant change in the education system in South Africa. The change continues today with the roll-out of the new curriculum and what is of interest to me as a researcher is the integration of previously marginalised knowledge of Africans in the school curriculum. A particular focus on the cultural history of fermented foods amongst the *Xhosa* informs the research and how we can draw from it as teachers so as to inform the school curriculum in mobilising indigenous knowledge.

This chapter examines literature related to these concerns and contextual issues which underpin the study, notably:

- Post colonial/apartheid and accomplishments of ten years of democracy in our country.
- The notion of education transformation with regards to the introduction of new national curriculum statements in the South African context and what the social goal is for change.
- Curriculum in context
- A discussion of the implications of IK within the Consumer Studies curriculum, with a particular focus on people's food choices and with specific reference to fermented food
- Existing mobilisation of IK within the curriculum work and environmental education.
- The role to be played by teachers as material developers and their role in assessment.
- Use of language for learning.

## **2.2 Local History and Context**

### **2.2.1 Post colonial / apartheid – 10 years of democracy**

South Africa is now in the post-apartheid era and there has been a need to change the past imbalances that affected the African people in the country. One of the areas that needed more attention and transformation was the education system of the country. Prior to 1994, more than one education department existed with different foci for different race groups. The new constitution of the country was drafted with one of its major objectives to address these past imbalances. The new Bill of Rights (1996, Act No.108), sought to respond to issues of inequality and the environment that characterised the country in the apartheid era, and it thus granted the right to education for all, equality and entailed in the constitution are the values that the citizens of this country are to adopt in order to address past imbalances.

It is now ten years down the line and the country is still undergoing transition, with challenges in the implementation of the new curricula at all education levels, with the Further Education and Training band awaiting implementation in 2006 in grade 10. The new curriculum statements have been structured in such a way that the cultural heritage that had been taken for granted prior to democracy is revitalized and re-appropriated (Giddens cited in O'Donoghue and Neluvhalani, 2002). This relates to what Cornbleth (1990) views as contextually shaped curriculum (see section 2.3.1).

In the light of this background and as actors in the transformation, teachers are to engage in enquiry ventures so as to enable us to revitalize the heritage of those who were previously marginalised by acknowledging the value of their African philosophies. The new curriculum statements therefore are vehicles for social change and will open opportunities for teachers to explore the value of these African philosophies. What is imperative to explore is how we can begin as a country to balance the Western and African philosophies as curriculum implementers taking into account that for decades Western knowledge has been the dominant knowledge form. The key role players in education, more specifically teachers, have a mammoth task ahead in seeing to it that social transformation prevails through curriculum development work.

### 2.2.2 Research area

This research was carried out at Nosizwe High School in a small township of Phakamisa, where I teach Consumer Studies in the Further Education & Training (FET) band. In close proximity to this township is Cliff location, a semi-rural settlement where some of our learners come from. In both these communities traditional cultural practices are still maintained by a few. The Eastern Cape (EC) population is mixed. However, in most of the areas within EC there are *Xhosa* speaking people with a very rich cultural background and heritage.

My research context is within purely *Xhosa* speakers. My interest in this study is uncovering some cultural practices of this group, with particular reference to their food choices and why they make those choices. The research, though is not trying to condemn the new practices people may have adopted in the area, but rather to revitalize and restore cultural practices that might have been forgotten over time, owing to changing lifestyles, through curriculum work.

The information gathered from the contextual profile I did in the area gives a clear indication that most people currently living in the area came there because they were seeking jobs in the nearby industrial area at *Zwelitsha*; while others were forcefully removed from farms they were staying on to small holdings in the former Ciskei homeland; and others moved into the area due to unforeseen circumstances like floods (Kota, 2004). As a result of these factors the area is affected by high rate of unemployment and poverty as the hope people had about jobs was not fulfilled and there are other factors affecting the area now like HIV/AIDS (Kota, 2004). Responding to these social issues, the study aimed at uncovering and recovering wisdoms of indigenous ways of knowing through curriculum work so as to sustain people's livelihoods.

### 2.2.3 Rural - urban migration and changing patterns of life

With the onset of modernity, human activities have changed. As mentioned earlier, people migrated from rural areas to urban areas to seek jobs and to have a better life,

and have lost much of their self-reliance and heritage in the process. For example, in this study I look at how cultural food practice has evolved from it being made straight from its original ingredients, which is maize meal and a spoon of flour, a bit of sugar and lukewarm water for the yeast. Now people use instant commercial yeast which is said to quicken the fermentation process of this fermented energy drink. This alone indicates how common traditional practices have been influenced by changing patterns of life. These changed patterns have not only affected the originality of these traditional food dishes like *amarewu*, but have affected, for instance, the consumption patterns of this food by many people. Having moved from rural to urban areas, people also changed their food choices and that is indicated, for example, by a lesser interest in the preparation of *amarewu* superseded rather by a sudden interest of consuming commercial *amarewu* (known as *Maheu* or *Amageu*) commercially. This indicates the change not only in the consumption pattern of this energy drink, but also the way in which it called especially in urban areas and by other African groups.

As highlighted earlier, one of the objectives of the post-colonial national project is the revitalization particularly of African cultural heritage. The policies of the country, including those of the Education Department, now acknowledge the need for working with indigenous knowledge within the school curricula. Hence, my interest to carry out this study as I would like to probe the possibilities of bringing back this lost local knowledge in issues pertaining to food practices, for example.

The contextual profile I did of the area where the study was done also indicated that some of the people are no longer practicing their culture for several reasons including modernity and change in lifestyle. People see themselves now as living in modern times so they have to live accordingly and others live according to new belief systems adopted over years of change. Soga (1931:181) aligned the change in the life of the *Xhosa* to economic benefits as they were interested in working in urban areas, exchanging their labour for money. Some, however, were forcefully removed from their birth lands as a result of agricultural development in those areas (Kota, 2004). They therefore had to migrate to new areas and were then exposed to new patterns of life and unfamiliar cultures, which resulted in them adopting new belief systems and practices. From my view, they had to compromise a lot in order to survive in the new world they have found themselves in. Part of what was compromised was the fact that their children had to be exposed to some kind of civilisation such as education.

The colonial era failed a lot of African people in many respects. The promises of jobs in big cities rather gave birth to a lot of social problems including poverty and crime, as cities became too small and congested and could not offer jobs for everyone and so some people had to think of ways to survive. Furthermore, the people's belief systems and morals changed as they started to commit crime. It was all survival of the fittest and life patterns and lifestyle choices were further compromised.

We are now in the post-colonial era and the mammoth task ahead of us as teachers is how we can begin to address social problems using the principles embedded in the new curriculum statements that are focussing on mending past injustices so that people, especially the younger generation, will begin to value who they are and embark on the journey of moral regeneration. All this has to be taught in our respective classrooms as our learners are the future of this country, hence the current education transformation in this country.

### **2.3 Educational Transformation**

The Further Education & Training band (FET) is the final gateway to higher education and training and what is imperative is to extend changes to FET learners. The time line started: (DoE EC, 2005:5)

- 1995 when the National Education and Training Forum (NETF) was established as a first step towards transforming the FET curriculum.
- 1996-establishment of new SA Constitution (Act 108)
- 1997-report of the National committee on Further Education and Training
- 1998-Introduction of curriculum 2005 for General Education and Training (GET) and White Paper 4 providing the formal policy framework for transforming FET
- 2000-Publication of new Norms and standards for Educators
- The process continued up to 2002 when the National Curriculum Statements (NCS) for FET were submitted for public comment.
- In 2003 the publication of NCS took place.
- In 2004 the Minister of Education announced that implementation of the NCS for FET will begin in 2006.

The above timeline showcases the transition that the country's education system has undergone up to the present. Even though all the above have been achieved, there is still a lot of work that needs to be done with regards to equalising the standards of education for all societies and across the nine provinces that exist in South Africa. This can be realised by the proper implementation of educational programmes including the new national curriculum at all levels of education.

### 2.3.1 New National Curriculum

The Constitution of the Republic of South Africa has informed the new national curriculum and the associated process, of social transformation in our post-apartheid society. The new curriculum statements seek to promote human rights, inclusivity, environmental justice and social justice, which are all defined in the Constitution of this country. Environmental justice underpins a lot which has to do with the well-being of people within a particular environment and the environments, too, are to be kept healthy and safe for people to live in. In response to this the Department of Education issued a White Paper in 1995 as a way of responding to the issues that were affecting the state of the environment in the country, the White Paper emphasizes:

...Environmental education, involving an interdisciplinary and active approach, must be a vital element of all levels and programmes of the education system, in order to create environmentally literate and active citizens and ensure that all South Africans, present and future, enjoy a decent quality of life through the sustainable use of natural resources. (RSA, 1995:18)

In the light of what this quotation from the White Paper proclaims as part of education strategies, is that environmental education be a focus in various levels and programmes of education in this country. The valuing of the environment created spaces for exploration of what the environment entails: that is, it has ecological and, at the same time, social contexts. If there is social context, it means there is interaction of people with ecological factors. The earlier work in environmental education and elsewhere in the educational arena in the country, even before the issuing of the White Paper, created links of the environment with the local communities in that particular environment, for example, principle 7 and 9 of Agenda 21 address the interrelatedness of environment and indigenous knowledge (see section 2.3.2).

Embedded in the national curriculum statements (NCS) is the valuing of indigenous knowledge systems (IKS) (DoE, 2003:4) in all subjects in Further Education and Training. Valuing of indigenous practices has found ground in the country's educational programmes for integrating them into what learners will learn at school. Indigenous Knowledge Systems (IKS) refers to all African philosophical thinking and social practices that have evolved thousands of years ago (DoE, 2003). It has been a quest for countries of the world to acknowledge the wisdoms of the aboriginals, to mention a few, Australia and Canada have been in the same quest as it has been found that one way or the other the aboriginals have been marginalised and not valued. "Canada ensures that all teachers have opportunities to learn Indigenous Knowledge in appropriate contexts and in multiple ways" (Battiste, 2002). Indigenous Knowledge systems in South Africa have been influenced by what has happened in other countries. South Africa has also borrowed some of the educational transformation ideas from countries overseas. What we are doing in South Africa is similar to what happened and is happening elsewhere.

The aim is to acknowledge the rich history and heritage of this country as an important contribution to nurturing the values contained in the Constitution (DoE, 2003:4). This is not at all trying to look down upon the Western knowledge, but rather bringing both traditional and Western knowledge together and to use them effectively in the teaching and learning situations in our schools. This hopefully would lead to transforming South African Society by making use of various transformative tools that stem from a need to address the legacy of apartheid in all areas of human activity, in particular in the education sector (DoE, 2003:2).

The new curriculum is designed within an Outcomes Based Education (OBE) approach. The inclusion of environmental education (EE) right across subjects and valuing Indigenous Knowledge Systems (IKS) is really a great challenge for all teachers. "This is not simply being done to fulfil the ideals of redress, equity and democracy in post-apartheid South Africa, but has come as a realisation of the enormous potential for environmental education processes to become culturally and socially contextualised and meaningful to all learners" (Masuku and Neluvhalani, 2004:358). Masuku and Neluvhalani (2004) further saw that the realisation of environmental education processes can provide solutions to some local environmental issues that may arise

from the rich and diverse ways of knowing embedded in local school and community contexts.

Embedded in implementing environmental education and indigenous knowledge is the notion of active learning which is underpinned in the social constructivist theory that relates to OBE. During the inception of OBE as a new approach in education in the late 1990's, a lot of havoc occurred; some teachers saw this new approach to education as flawed and others struggled to comprehend the whole idea. The term OBE tells in itself that what we have to aim at as teachers is at outcomes envisaged in that particular subject. As we are about to implement the NCS in Grade 10 in 2006, the situation has not really stabilised. In many ways there are still uncertainties concerning how OBE will work in FET and what social expectations teachers face from, the Department of Education (DoE), the learners and the community. The change in a lot of subjects is another area of uncertainty as some teachers are not sure whether they will cope with the new content that has been incorporated into their subjects, let alone the approach of outcomes-based education (OBE), in order to implement the subject contents. In my view, the other challenge that was not addressed during the uncertainties of the new curriculum was the epistemology that underpins outcomes-based education.

In the light of the above, as a teacher, I have to play a vital role as an agent of social change in our country. What this implies is that there is a prerogative out there to change communities and as teachers we are the ones who are very close to the communities; our innovativeness in approaches of implementing this new curriculum would contribute to a new transformed society.

Stenhouse (1980) sees teachers as researchers. Similarly, within the norms and standards for education (DoE, 2000), teachers are also seen as researchers. The curriculum document also states that the envisaged teachers have to fulfil certain roles, for example, teachers are to be mediators of learning, interpreters and designers of learning programmes and materials, leaders, lifelong learners, assessors, community members, subjects specialists and researchers as Stenhouse (1980) has proposed, too (DoE, 2003:5).

The question that needs to be asked is where does this leave the individual teacher in the curriculum development work? Hopefully this study will provide some guidelines in addressing that question, especially regarding indigenous knowledge mobilisation within the curriculum.

Though, there are other challenges facing us. For example, it is stated in the curriculum document that teachers are to develop material (this area will be dealt with later in section 2.6). However, there might be problems in comprehending the role of being material developers as teachers are used to textbooks, especially in the FET band, as the teaching and learning resources. In spite of the obligatory roles we have to play for curriculum change in this country, it is fortunate that the timing coincided with the president's call for an African Renaissance, which has led to development of NEPAD and other regional structures. These to me serve as a support base for the challenges ahead of us in the education system especially in so far as realising who Africans are and what they can do in order to contribute to the dominant knowledge systems that have prevailed for many centuries in this country and Africa as a whole.

### 2.3.2 Global stance for/on Indigenous Knowledge

The world currently faces a challenge of acknowledging the role that can be played by indigenous knowledge in dealing with challenges facing various communities today. Several global imperatives also underpin the need for renewed attention to Indigenous Knowing Systems (Odora-Hoppers 2002). Such acknowledgement should not operate in isolation but can be linked to the western knowledge that has rooted itself in most parts of the world today. Globalisation has threatened the appropriation of the collective knowledge of non-Western societies into proprietary knowledge for the profit of the few (Odora-Hoppers, 2002: 3).

South Africa's quest for educational transformation has been modelled by many developed countries and by the works of the renowned researchers in the field of indigenous knowledge. All these have an enormous contribution in shaping what our country's education system will be and South Africa has gained insights from their experiences for the betterment of its education system. The trend for educational transformation is not solely a national issue, but is influenced by global issues. For example, the inclusion of environmental learning and indigenous knowing (IK) are

also embedded in the principles of Agenda 21, which has a global imperative in dealing with worldwide issues. Principle 7 and 9 of Agenda 21 address the importance and need of valuing everybody's indigenous knowledge systems. Principle 7 maintains that: Environmental Education must recover, recognize, respect, reflect and utilize indigenous history and local cultures, as well as promote cultural, linguistic and ecological diversity. Principle 9 advocates that Environmental education value all the different forms of knowledge (cited in O'Donoghue and Neluvhalani, 2002).

Greiner (1998) further emphasizes the marginalization of IK, referring to it as having been ignored or maligned by colonial powers and scientists depicting it as primitive, simple, static or folklore. All this contributed to the decline of IK systems, through lack of use and application (Greiner, 1998). What Greiner highlighted in his work indicated the role played by formal schooling in enforcing the negative attitude towards Indigenous Knowledge.

I think the world now is in the quest of creating a balance in the knowledge system patterns that can inform global and local initiatives. Consequently, South Africa is not sailing alone in the re-appropriation of knowledge systems, other parts of the world are too and this is done by mentioning it through curriculum work.

## **2.4 Curriculum Contextualisation**

Cornbleth's (1990) view on curriculum as a contextualised social process is applicable to approaches of implementing OBE and ensuring active learning and participation in educative processes. The vantage point in this research is contextualising the curriculum by working with indigenous ways of knowing within the school and community contexts. Cornbleth (1990) uses critical theory in order to question taken-for-granted practices, probing assumptions and implications. This is therefore relevant to this study as I tried to unfold the IK practices that were previously left out in the school curriculum and processes that I can follow as a teacher in the quest.

The practical opportunities that were created in the study allowed my learners to learn what indigenous knowledge practices from their culture were, and how they can link that to concepts they learn at school, and that was a typical example of a curriculum as a contextualised social process, as context was considered during the planning. I then became aware of the structural and socio-cultural contexts of the learners

(Cornbleth, 1990) and used local contexts, not necessarily those indicated in the curriculum document but any contexts which could be more suited to the experiences of the learners DoE (2003:24).

The NCS characterises a critical interest curriculum as I have mentioned earlier (Cornbleth, 1990) and there has been a shift from a technocratic curriculum that only sees a curriculum as a tangible product, usually a document or plan for instruction in a particular subject, as it was in the old syllabuses of the FET. The critical interest curriculum now considers the actual day-to-day interactions of students, teachers, knowledge and milieu, ie. both the structural (syllabus) and the socio-cultural (local context or community) contexts. The NCS also sees curriculum construction as an ongoing social activity that is shaped by various contextual influences within and beyond the classroom as suggested by Cornbleth (1990:24).

The interaction with the setting, which involves the learner's own background, a more knowledgeable person (ie. adult) and among the learners (peers) and the reflections they will make in that process will show how learning has best taken place in a particular context (Baumann, 1997 citing Vygotsky). Grundy (1987) emphasises curriculum as praxis which ensures interaction and reflection in the educative processes. Hence the choice of my study as it focused on indigenous food which enabled linking the process of fermentation to a local practice of '*ukuvundisa*' (to ferment). This link provided a deeper understanding of the scientific concepts learnt through reflections learners engaged in after learning the indigenous practice. This again created an opportunity for learners to value their own culture too.

Masuku (1999) states that teaching and learning of indigenous ways of knowing should not be confined to school, because indigenous ways of knowing are learnt more from parents at home, which is the socio-cultural context. Hence, I decided to invite the local community member or parent to come and demonstrate the local practice to learners at school.

This study in a way created another dimension in a learning context because the classroom was transformed to accommodate a local community member as the more knowledgeable source in sharing indigenous ways of knowing when she took up the platform and became the teacher for the day. In this way the content and learning

were contextualised. Consequently, the interaction and reflections with the more knowledgeable person were expected to inform the learning processes and curriculum use in context.

#### 2.4.1. Indigenous Knowledge and Consumer Studies Curriculum

Greiner (1998) refers to IK as the unique, traditional, local knowledge that exists within and developed round the specific conditions of women and men indigenous to a particular geographic area and this knowledge is dynamic. Greiner (1998) perceives knowledge as dynamic, that new knowledge is continuously added, hence the notion of intergenerational knowledge (O'Donoghue and Neluvhalani, 2002). The indigenous knowledge is seen as intergenerational and can be appropriated (O'Donoghue and Neluvhalani, 2002) within a particular cultural group. The idea of curriculum change current in this country is in line with re-appropriation as Giddens (1991 cited in O'Donoghue and Neluvhalani, 2002) put it, as we will be tracing back from our past in order to re-appropriate knowledge through learning and research. O'Donoghue and Neluvhalani (2002:22) explain appropriation as a:

Useful concept for probing the politics of knowledge creation.

It allows one to engage in processes of oversight, transformation and marginalization through which much contextual knowing was lost and changed in the politics of human meaning making.

What this research project did was to re-appropriate knowledge that has been left out in the Consumer Studies curriculum. Through the education transformation in the country, the previously maligned knowledge earned social and academic status and was valued.

Consumer Studies acknowledges that there are different knowledge systems through which people make meaning of the world they live in. It acknowledges the richness of indigenous knowledge systems and their contribution to transforming the values of learners. Consumer Studies incorporates a variety of contextual knowledge of South Africa's cultural diversity in indigenous food, clothing and housing practices (LPG 2005:9). For this study, one area of South Africa's cultural diversity was used, ie. food practices.

In this study three learning outcomes (LO) 2, 3, and 4 were used, but the most significant learning outcome is learning outcome 2 as it addresses the valuing of

indigenous knowledge systems. In LO 2 the learner is expected to be able to make knowledgeable consumer choices about food within a given socio-economic and cultural context.

In LO 3 the learner is expected to be able to demonstrate consumer responsibility towards the sustainability of the environment, the community and self through judicious use of resources. In LO 4 the learner is expected to be able to apply knowledge and demonstrate the skills necessary to produce quality consumer products and even apply entrepreneurial knowledge. This learning outcome further explains the importance of indigenous knowledge, skills, customs and practices in creation of these products (see chapter 4).

Shava (2000) recommended that educational approaches should be contextual and should encourage the learners to bring in and share their experiences in the learning situation. What Shava recommended was that “We all have a social habitus, an orientating capital of perspectives in and for everyday life” (Bourdieu in Bourdieu and Passeron, 1977 cited in O’Donoghue and Neluvhalani, 2002:122). The re-acknowledgement of indigenous knowledge systems in integration with the existing curriculum would encourage learners to draw on their cultural practices and daily experiences, as they negotiate and grapple with new situations and unfamiliar terrain (Seepe, 2000). Asafo-Adjei (2003) has recommended continuous mobilization of IK in the FET curriculum, as he saw the value of learner’s social habitus in his study.

#### 2.4.2. Nutrition, food choice and culture

The Grade 10-12 subject statements provide broad content and contexts in which Assessment Standards can be attained. Teachers are encouraged to use content relevant to their particular learners’ local context. This then signifies curriculum contextualisation as discussed earlier in section 2.4.

Today malnutrition is one of the challenges facing some communities, whether rural or urban. This is as a result of unhealthy eating patterns people have adopted that are now part of their lifestyle. These unhealthy eating patterns have led to environmental social problems and unsustainability of livelihoods. For example, when I did a contextual profile of the area in which this research is based, I gathered that many people have changed their food choices in that they moved away from their culture thus affecting

their nutrition (Kota, 2004). Therefore, this raises a concern why the shift in cultural food choices and how that affects cultural and nutritional evolution of many local people especially after having migrated to urban area (see section 2.2.3.)

Learning outcome 2 creates a space for learners to be able to make sensible choices about what to eat and according to this outcome, they will do this by investigating more from a particular socio-economic and cultural context which, in essence, according to the study, is the very same community that indicated a change in food choices and nutritional preferences in the contextual profile (Kota, 2004). It is evident that what has been discussed earlier in section 2.2.3, that urbanization and commercialization have accounted for significant shifts in diets away from the less expensive, high-energy food, such as cereals, to a variety of diets with varied nutritional value (Rosegrant, 1995).

The biggest concern out there is the continuing change in eating patterns, which degrade the health of people. Getting a balanced diet these days depends highly on processed food. The shelf life of such food is prolonged and the 'sell-by-date' is inscribed on the packaging. Processed food comes with certain additives that may be detrimental to health and well-being. Compared to the above preservation, in the olden days people had a particular way of processing their food and preserving it which excluded the commercial and chemically produced additives. What learners are to learn in Consumer Studies is to make sensible choices about what is good to eat considering the food groups and the proportion of each food group in order to get a balanced diet and concerning additives and their value to food.

The knowledge that they will receive might be different from what is practiced in their respective homes. The reason for that is that some households are still using traditional methods of preserving and cooking food and even different traditional foods as part of their diet. It is evident from the contextual profile that traditional food practices are still part of some households both in rural and urban areas. So learning about the food choices of people from various backgrounds is part of the learning necessary to understand factors like religion, lifestyle and tradition that have a bearing on such choices.

The old curriculum was silent about the nutritional value of traditional food practices, especially those of the African origin. The new Consumer Studies curriculum is a

learning space enabling the uncovering of indigenous practices in so far as the preparation of food and nutritional value of traditional food is concerned for people of a particular cultural group.

Some people today are ignorant about the state of their health as they just eat anything without considering the value of the food to their health and well-being. What is evident in most communities today, whether rural or urban, is that traditional food is now alien to some households and this has resulted in people shying away from their cultural practice, such as eating traditional food like '*imifino*' (relish) or drinking '*amarewu*'.

Research conducted in the United Kingdom has shown how children growing up in urban areas are ignorant about where the foods they eat come from (Dillon, Rickinson, Sanders, Teamey and Benefield, 2003). As a result of this research, some schools have developed a programme to take these learners to rural farms where they can see the efforts of rural people who supply them with food in urban areas (Dillon *et.al*, 2003). What is highlighted here is not to discredit modern food but to bring back the awareness that many of us have concerning nutritional value of traditional food, and how sustainable these food practices were. Again, this is aimed to create awareness about the value of traditional food for the benefit of the younger generation.

The schooling that we are exposed to teaches us how important it is for one to maintain a healthy diet, but among the foods listed in books there is no mention of our traditional foods. This led to people adopting new Western diets instead of what our ancestors were used to and perhaps one can begin to see the impact of Eurocentric education on many indigenous people. This has not been the case only here in Africa but also in the other parts of the world where there are indigenous populations. In my view, colonisation did not only colonise colonies, but also the minds of many indigenous people. Unfortunately, for the indigenous people in many areas of our country, the lifestyle that came with the Europeans and their food has now established itself in the daily diets of many.

Despite these influences, there are some people who have kept their indigenous lifestyle and food choices and these are the people that have done a great job in conserving some traditional practices that are still evident in some rural and urban communities today. In this study my aim therefore was to uncover such practices through

curriculum development work. Hence, the question: how can teachers begin to mobilise the indigenous knowledge with an environmental and sustainability focus? This would be to value what such communities still own and value, and to bring this into the knowledge dominating and contributing to the changed lifestyle of the many indigenous people today.

Soga (1931) claimed that changes similar to those discussed above, date back to the introduction of European agriculture. People then began to move away from their staple diet which included milk and grain (Soga 1931). Though, there is nothing peculiar though in the introduction of agriculture, as varied diets emerged. The other problem came with the migration of people from rural to urban areas; people started to eat fast and processed foods more than producing their own food, they became consumers depending on big industries and their products instead of home producers and became less self-reliant. What was nutritious in their original diets was left out and superseded by readily available foods. There is worldwide criticism of the negative impacts caused by some modern diets to people's health, such as people getting obese, developing heart diseases, etc (Rosegrant, 1995).

There is worldwide call for a shift towards local food (Norberg-Hedge, 2002). Norberg-Hedge (2002) further claimed that such a shift would lead to benefits to local economies and social benefits to communities as a whole. Of significance, then, is that in the Consumer Studies curriculum one of the learning outcomes (LO) focuses on the development of self reliance by producing home products due to availability of resources and food choices within their social context. What this learning outcome further encourages is starting small businesses (home-based production). What we can build in the process of mobilizing IK will encourage locally produced food with good nutrition.

I therefore argue that it is possible to bring in nutrition through Indigenous Knowledge, and the fermentation knowledge of the local people is one example of mobilizing the potential of indigenous knowledge. In this study this was done by focusing on Xhosa food practices as influenced by their culture and by looking at the influence of local knowledge and attitudes on their food habits and patterns. The example of *amarewu* as a fermented grain food product was used in uncovering and recovering these indigenous practices.

This is not the only area that has potential for the mobilisation of indigenous knowledge. For example, clothing and interior design also have potential. As a researcher I have decided to work on one example of food that has potential. In this study the learners were accorded an opportunity to evaluate the nutritional value of fermented food to compare home production vs. commercial production, which was hoped to instil valuing of indigenous food production practices. Hopefully, this may lead to changing people's perceptions about locally produced food and begin to raise perceptions about its nutritional value.

#### 2.4.3 Cultural history of fermented foods amongst the *Nguni*

*Amarewu* is a mild non-intoxicating beverage used for private and domestic drinking; it is a milder beverage. *Umqombothi* is an intoxicating beverage. Both it and *amarewu* are fermented, however. For *umqombothi*, the process is longer and malt is added. For the preparation of *amarewu*, maize is ground to a fine meal and a small quantity of wheaten flour or malt is added to it in order to produce slight fermentation. A sufficient amount of water is then added to prepare a thin porridge. The process of fermentation thins down the porridge until it is sufficiently liquid to be taken as a drink (Soga, 1931:401). *Amarewu*, in consequence of not being passed through a sieve, is of greater food value and more nourishing. *Umqombothi* is sieved but comparing it to other alcoholic beverages is nutritious. *Amarewu* still forms part of the diet of some *Xhosa* speaking families, but it has been shadowed by other modern foods and beverages and is seen as useful in poor, mainly rural, households.

As part of supporting the question of food security and sustainability and health within a particular context, *amarewu* can still retain its value. In the light of this I hoped that my study will dwell more on this and many issues come up so as to see possibilities of using this IK practice by households through the influence of curriculum work.

The question that might now arise is why *amarewu* and what is its' the link to this study. As I have indicated previously my vantage point is to contextualise the curriculum and make it a social process. Earlier in this chapter I highlighted that the NCS's approach is outcomes-based and there are outcomes that have to be met by learners at the end of their study in this band.

Effective teaching challenges a child's thinking, provides motivation as well as information and matches the context to the content (Dillon et al., 2003:10). It came to mind that, in order to give effective teaching, context and content are to be considered together in order to challenge the thinking skills of the learners. This has alerted me to the fact that there are certain nutritious foods that are not consumed by most *Xhosa* speaking people but by only a few.

*Amarewu* to me was an example of food which can be used to mobilise indigenous knowledge with an environmental and sustainability focus. In the past in rural communities people shared the nutritious fermented beverage, *amarewu* and almost everyone had it readily available in their own households. This signified how people cared and supported each other through valuing the well-being of each other. The challenge in this study was to provoke learners into thinking about the practice of *amarewu* and linking the concepts of fermentation, sharing and food choices.

Historically, *amarewu* is prepared from left-over porridge, which attracted me as from left-over food a nutritious drink or food is prepared. What made me to focus on *amarewu* was the concept of fermentation, which is a scientific concept that learners will come across when looking at the section on cereals and bread making. What is of significance to this research is that indigenous people had empirical knowledge long before we could talk of scientific knowledge. They used to ferment '*amarewu*' and '*umqombothi*', a process known in *Xhosa* as '*ukuvundisa*'. Also of interest and significance is the indigenous knowledge people had that if they ferment the left-over porridge with no sugar or fat added, another dish comes out of the process that gave them energy and was popularly used by working men and women in the fields.

This was not only used as an energy-giving food, but also as a thirst quencher because people worked in the hot sun and they would have intervals to sit down and have a sip of *amarewu*, after which they would have strength to finish the day's work.

#### 2.4.4 Fermentation and food

Fermentation is a process which can be explained scientifically according to propositional knowledge. Fermentation involves the conversion of starch into glucose. When the fermentation process is prolonged the enzymes cause food to

ferment further producing alcohol. The glucose that is formed during fermentation provides people with less saturated starch or carbohydrates and produces energy when consumed. The focus of my research was on half-fermentation which results in the production of a non-intoxicating nutritious beverage and to which no malt is added (Soga, 1931). The nutritional value of *amarewu* is as follows. There are less saturated carbohydrates that provide the body with instant energy, Vitamin B for a healthy nervous system and enzymes for digestion. Food is fermented for many reasons. For example, to prolong shelf-life of certain foods, for bread-making, making of alcoholic beverages and for improving the nutritional value of food like non-intoxicating beverages, like *amarewu*.

The process of fermentation is probably ancient as people had a particular way of preserving their food as there were no modern preservation methods like using additives in food to prolong its life, and for processing palatable foods. People practiced a variety of foodstuffs as in bread-making and brewing traditional beer (*umqombothi*). The nutritional value of the products and their uses and processes varied.

In consumer studies we create opportunities for learners to do practicals. There are economic practices evident in the practice of making *amarewu*, such as people did not throw away left over porridge but rather produced some nutritious drink from it. This supports the fact that people had an indigenous way of knowing that led to their sustainable healthy lifestyles. Sharing of food resources was encouraged thus allowing people to live a healthy lifestyle. All households would have the nutritious drink and it was fermented right through, so that there was readily available food whenever one felt that he or she was hungry or thirsty.

*Ubuntu* (the spirit of humanity) informed the ways of living and the spirit of sharing and giving was related to fermentation. What seems to be forgotten today are practices that *amarewu* signified in order to alleviate poverty in our neighbourhood and families. We have become self-centred and sharing even in most impoverished communities is seen as a loss. Being poor is part of what many of us are and one now thinks only of his/her immediate family.

The use of *amarewu* is an example of a practice that can be used to mobilise indigenous knowledge in the Consumer Studies curriculum addressing the content of

cultural practices and how these influenced food choices. Going back to our sustainable lifestyles in which everyone's livelihood was valued by sharing the little one had with others, hope that the study may bring back the dignity that many of us have lost due to food insecurities and poverty.

*Amarewu* is a valued food which has now been commercialised and one can buy it in cartons at a shop. Now people buy it instead of making it and it comes in different fruit flavours, unlike the home-made one which is only maize-meal porridge. Many households only use *amarewu* on cultural occasions. However, families that prepare it as part of their daily diet are seen as poor. Such attitudes are not producing solutions to the problems we face in our communities but rather are destroying our cultural heritage and lifestyle. The Consumer Studies curriculum is a learning space in which we are being prepared for life as responsible consumers since most of us, whether indigenous or not, have been transformed by time to be consumers. Another added advantage is that we can use the practical skills we are equipped with in the subject to be entrepreneurs and use our locally produced food to be self-reliant, instead of living a consumer life.

## **2.5 Existing mobilisation of IK within the curriculum and environmental education**

The challenge faced by all of us is determining what is indigenous in stories that are shared in our communities. This becomes a challenge partly because of the way IK is transmitted, which is oral. That makes it vulnerable to rapid change especially when people are displaced or when young people acquire values and lifestyles different from those of their ancestors (Greiner, 1998). The Africans have suffered what Odora-Hoppers (2002) calls emotional dislocation, moral sickness and individual helplessness. Many of us are a product of this emotional dislocation, moral sickness and individual helplessness, resulting in lack of confidence and adoption of new ways of doing things. Previous curricula never took up the challenge of teaching people about their daily practices but researchers like Masuku (1999), Shava (2000), Neluvhalani and O'Donoghue (2000, 2002) Asafo-Adjei (2003) and Kachilonda (2005) put a focus on this as they unpack the value of indigenous knowledge in relation to environmental education.

The work of these researchers serves as catalyst in the research on indigenous knowledge and environmental education in Southern Africa. They have tirelessly researched on methodologies to use when integrating or working with IK within environmental education and the school curriculum. So their work is not recording what is indigenous but going beyond that by looking at the how to questions and uncovering the challenges that face environmental educators in the quest. They have also contributed enormously to the development of indigenous knowledge learner support materials that are available for use by educators in the Southern African context.

## **2.6. Materials Development**

Czerniewicz and Murray (2000) state the importance of educators' ability to design a teaching /learning strategy in their research so as to facilitate the achievement of learning outcomes. In their work they attach meaning to the educator's capability to develop materials to support learning.

The new curriculum challenges us as educators to develop learner support materials to supplement what is learnt and to create meaningful learning experiences. One of the Department of Education's (DoE) basic principles entrusted to educators is the development of learning support materials (LSM) especially in curriculum work aiming at promoting awareness and respect for the environment and the diverse cultural heritage of society at large (DoE 1999g cited in Taylor and Vinjevold, 1999:164). What this implies is that materials developed should depict what our heritage and environment look like, and to value these to ensure the sustainability of our culture and environment. The materials could be visual and textual.

The research done by Wickham and Verveld (cited in Taylor and Vinjevold, 1999:171), shows that teachers use textbooks according to their practice, rather than according to the vision of the material developers. We need to move away from a textbook orientated education to innovative ways of learning in which materials will be developed by educators according to content and context of what is to be learnt. Sigabi (in Taylor and Vinjevold, 1999:179) raises the major inhibitors to teacher's non-development of their own learner support material as a result of lack of resources like libraries, duplicating facilities and so on. Sigabi (1999) concludes that it is unfair in these circumstances to expect teachers to develop their own learning support materials.

Even though Sigabi raises the point of it being unfair to expect teachers to develop own materials, I still see opportunities for teachers to use their own context and develop materials that learners may attach meaning to and use to support their learning. Masuku (1999) conducted the first school-based research supported by Share-Net to explore the development of Indigenous Knowledge materials in the curriculum. Such materials were aimed at re-appropriation of Indigenous Knowledge Systems for schools.

With the implementation of Curriculum 2005 and the Revised National Curriculum statements in general Education and Training band in earlier years, in my experience one of the main challenges that faced many teachers was availability, use and development of learner support materials (LSM). For FET this might be different as teachers are motivated to design, develop and use varied materials. As I am working on this study and with implementation of the new curriculum in 2006 in Grade 10, we teachers are expected to focus more closely on other ways of supplementing and enhancing learning which is to develop and design LSM. In fact, it has been noted that teachers are increasingly using a wide variety of learning and teaching support materials for their lessons (NEEP-GET, 2005).

In the light of what Sigabi (in Taylor 1999:179) raised on materials development, it is imperative to create learning spaces that are flexible and responsive to the lessons (NEEP-GET, 2005). It is even more important especially with the implementation of the new curriculum. In cases of what Sigabi raised on the lack of support resources as teachers we have to learn or establish networks in order to get support in the process of designing and developing of materials. Materials development might be time consuming and inconsistent at times, but the social transformation of our country rests in our hands as teachers to a certain extent. Such initiatives may create meaningful interpretation and learning in teaching and learning and knowledge creation situations.

### 2.6.1 Learning Programme Development

One of the roles of teachers is to be interpreters and designers of learning programmes as indicated in section 2.3.1. A learning programme is a tool that enables teachers to plan for sequenced learning, teaching and assessment across the

Further Education and Training band (ie. Grade 10-12) so that all learning outcomes in Consumer Studies are achieved in a progressive manner (LPG, 2005:13). It is recommended in the guidelines that teachers put together a broad subject outline (ie. subject framework) for the band. Teachers teaching the same grade need to work together and draw from the content and context identified for their grade in the subject framework, to develop a work schedule in which they indicate the sequence in which the content and context will be presented for Consumer Studies.

Finally, as the individual teacher, I must design lesson plans using the grade specific work schedule as the starting point. Lesson plans should include authentic learning, teaching and assessment activities that reflect real-life contexts. When working within the context of the National Curriculum Statement and Outcomes-Based Education, learning programmes need to be flexible to accommodate diversity in each individual Consumer Studies classroom. The process therefore is not strictly linear and very much reflective in nature (LPG, 2005:14).

#### 2.6.2 Learning Activities and Assessment

The key to successful teaching in Consumer Studies relies heavily on the teaching approach chosen by the teacher. In theory classes the ‘talk and chalk’ method needs to be used less and be replaced by ‘doing and talking’, as learners would be accorded the opportunity to voice or express their views and participate in their own experiential learning. As a Teacher, I can engage learners more actively by facilitating learning, using group work as this will allow learners to assist each other. Activities need to be practical and allow learners the opportunity to experience learning in a hands-on manner or use demonstrations (LPG 2005:11). Furthermore, the theory classroom layout needs to accommodate active learning. In consumer studies the process must be emphasised along with the product.

“Learning occurs, not by recording information but by interpreting it so that instruction must be seen not as direct transfer of knowledge but as intervention in an ongoing knowledge creation process” (Resnick, cited in Gipps, 1994). The constructivist approach in learning informs the processes of developing materials that are related to assessment as learners can be actively involved in making sense of new knowledge, making meaning from it and sharing it within the social context they would be

working in (Gipps, 1994). Maree and Fraser (2004:8) define a constructive, cumulative, self-regulated, goal-oriented, situated, collaborative and an individually different process of meaning and knowledge construction which are to be considered during assessment.

Elen and De Corte (1999) cited in Maree *et al.* (2004) state that new developments in the field of learning and instruction shifts towards constructivism and learner-centred approaches such as OBE are more process oriented. This should influence the way assessments are conducted. Process assessment informed my research decisions to design activities for learners that focussed on processing information. According to Gipps (1994) and Le Grange and Reddy (1998), assessment involves a wide range of purposes. It could support teaching and learning; provide information about pupils, teachers and schools; and drive curriculum and teaching. The rationale is to be able to determine the quality of the process itself and create an opportunity for learners to engage in higher-order learning and divergent thinking. Assessment can be seen as the ability to see learners, to perceive what they can do in the hope of understanding how they learn and to assist their learning (Maree *et al.*, 2004:32).

Hence, the decision of deciding that assessment should be part of the processes in this research. Assessment therefore needs to be developed with a clear sense of curricular purpose and clear levels of analysis, which include for whom or for what assessment is playing a role. The formative assessment approach is integral to learning and takes place through out learning. The approach is supportive to learning, focuses on providing constructive criticism to learners, gives teacher and learner feedback and provides information whether outcomes are being achieved (Maree *et al.*, 2004:35). Various techniques are used in this approach like setting an assignment. Drafts can be handed in and the teacher will comment on or discuss these with learners.

## **2. 7. Use of Language for Learning**

One of the principles of constructivism states that learning involves language (Moll, 2002), which implies that quality and accessibility of the language we use in learning activities would influence learning. Baumann, *et al.* (1997) writes that Vygotsky maintained that language is a vital instrument for the development of thought, all learning is social and language is a social medium.

Macdonald and Burroughs (1991) stated that if children can use their own language, they can express their own ideas and can be creative. However, if new language is used, they will be put into a kind of prison. Macdonald and Burroughs (1991:30-31), further claim that children's thinking develops quickly and easily in their first language. There are ambivalences that are created by the notion of learning using the home language. Some see it as not providing international standardised qualifications, others see it as maintaining inferiority (Macdonald and Burroughs (1991:30) and yet others see it can be used to gain a better understanding of concepts and issues within learning encounters.

Masuku (1999) and Asafo-Adjei (2003) indicate the value of mixed languages when certain terms are explained, which resulted from the fact that translations do not have exactly the same meaning as the original words used in the home language. Bourdieu (1993) states that learners draw on cultural capital derived from classroom settings and their social habitus to make meaning in interpretative learning. Therefore, learners bring to school language capital from home, which relates to Bernstein's (as cited by Wood 1999:113) view on the elaborated code that learners encounter at school as they bring the restricted code from home. Therefore, learners would be affected by linguistic deprivation (Bernstein cited in Robertson 2002) as they would be unable to use the elaborated code effectively as expected at school.

Use of language in the content is another area to be aware of, as there might be loss in meaning if certain information or words are translated (Masuku, 1999; Asafo-Adjei, 2003). Consequently the essence and meaning must be maintained in order not lose valuable information in what is being learnt. In terms of principle XI of South Africa's new (post-apartheid) constitution: "*The diversity of language and culture shall be acknowledged and protected, and conditions for their promotion shall be encouraged*" (Robertson, 2002:6).

In terms of education *per se*, every learner has the right to "*instruction in the language of his or her choice where this is reasonably practicable*" (Robertson, 2002:6). Our constitution has now given status to eleven languages, and there are still some people who are not willing to embrace or comprehend the pedagogical value of mother-

tongue instruction. Hence, there is a lot of debate regarding what language is suitable for instructing learners at all levels of education.

The inclusion of indigenous knowledge within the curricula in this country will definitely prolong the debate about language as surely as there is content that would have to be shared in a particular African vernacular language. The local knowledge that our learners would be engaged in may pick up dialectical differences within a particular context as one would find that the origins of certain people in a particular community are different and therefore, the way things are done and pronounced would differ, too. When I chose to work with indigenous knowledge I hoped to unpack the language complexities that would be facing learners when learning about indigenous practices.

## **2.8. Concluding Summary**

In this chapter I dealt with curriculum transformation in the South African context paving the way for understanding the aim of this research. I also considered the possibility of mobilising indigenous knowledge with a particular focus on curriculum principles and subject learning outcomes 2, 3 and 4 of the Consumer Studies FET curriculum.

What I argue is for the inclusion of indigenous knowledge systems in formal schooling. The re-appropriation of indigenous knowledge within Consumer Studies is a learning space, both for educators and learners. What comes to mind is whether we still want to suffer from emotional dislocation, moral sickness and individual helplessness. The learning spaces created by Consumer Studies may help me to bring back the pride we once had about who we are and how we can contribute meaningfully to the education of the younger generation so that our cultural heritage is preserved and sustained for many years to come. I therefore see the curriculum as a better tool to mobilize indigenous knowledge systems by unfolding the prior-knowledge of learners.

The chapter also looked at fermented food as an exemplar to mobilise IK within the Consumer Studies curriculum. The main aim was to arouse the lost cultural pride in our traditional food and to provoke thoughts in people about how to strike a balance between modern food choices and indigenous food choices. What was also explored in this chapter was the migration of people from rural to urban areas resulting in the

loss of a sense of who they are as they begin to adapt to new lifestyles and food choices that have a bearing on the health and poverty of many impoverished communities today.

What I looked at, too, were the world views on indigenous knowledge regarding the place of indigenous knowledge systems in the curriculum of schools. In that respect I described the role we need to play as agents of social change and curriculum implementers in a contextualised curriculum. Material development which is IK oriented, and how language can affect learning was also discussed.

In the next chapter I will discuss the research design of the study.

## CHAPTER 3

### RESEARCH METHODOLOGY AND TECHNIQUES

#### 3.1 Introduction

This chapter outlines the research design of this research dealing with how I can mobilise indigenous knowledge with an environmental and sustainability focus in the Consumer Studies FET curriculum. In order to answer the research question, I narrowed it down to a specific topic, that is the preparation of *amarewu* (see section 2.4.3). For this study, I had four research goals to consider (see section 1.4). These research goals influenced the research design decisions that guided me in my research. What is also described is the research methodology, research orientation and the methods used for data generation, analysis and interpretation and how I dealt with the validity and trustworthiness of the findings and ethical issues arising from this study.

#### 3.2 Research Orientation

The research paradigm I chose for this research is the interpretive approach. The interpretive approach tries to harness and extend the power of ordinary language and expressions to help us better understand the social world we live in (Terre Blanche and Kelly, 1999). Research done using the interpretive approach relies on firsthand accounts, tries to describe observations in rich detail and presents its findings in engaging and sometimes evocative language (Terre Blanche and Kelly, 1999).

The research involved the observation of food preparation demonstrated by a local community member to learners at my school. During the demonstration, a particular local language, *isiXhosa*, was used because it is the home language and it enabled them to give firsthand accounts of their experiences. Interpretive researchers want to make sense of feelings, experiences, social situations or phenomena as they occur in the real world, which I wanted to study their natural setting (Terre Blanche *et. al*, 1999:127).

As a researcher I wanted to make sense of local experiences and, at the same time, to raise the awareness of the participants on the role and contribution their experiences played in educative processes. From an interpretive perspective the first thing to consider in data collection is that the word data represents bits of discrete information

that can be extracted from their context, whereas interpretive researchers typically work with material that is richly interrelated and would lose its meaning if broken into discrete bits (Terre Blanche *et. al.*, 1999). The perspective thus informed the methods to be used in data collection and I chose the research design discussed below because I did not want to lose the meaning of the generated data.

What will be interpreted here is the mobilisation process of an indigenous practice and how the research participants felt about curriculum change. As the researcher, it is my duty to interpret the pros and cons of all activities planned in the research so as to inform the actual practice of other teachers and prospective researchers on the issue.

### **3.3 Research Methods**

The research reported here is an interpretive case study focusing on the process of mobilising indigenous knowledge within the FET curriculum. According to Stake (1995), a case study is expected to catch the complexity of a single instance. A case study also studies an instance in action, and it provides a unique example of real people and situations thus enabling readers to understand ideas more clearly than simply presenting them in terms of with abstract theories and principles (Cohen and Manion, 2002). Yin (2003) sees a case study as an empirical inquiry that investigates a contemporary phenomenon within its real life context.

This research is a case study in which, as the researcher, I am trying to establish the complexity of integrating local knowledge with the curriculum in the context I chose. Kemmis and McTaggart (1982 cited in Mc Niff *et al*, 1996) saw that the linking of the terms action and research as highlighting the essential feature of the method: ie. to try out ideas in practice as a means of improving and increasing knowledge. While the study was not an action research process, to a certain degree I acknowledge what Kemmis and McTaggart (1982) say about linking action to research in that for this study, action was on the practical side, ie. the demonstration and the research was on the fact that I, the researcher, was present and observed the demonstration at the same time I was researching. So I wore two caps right through the study: ie. the cap of being a teacher and that of being a researcher.

An interpretive research case study can be participatory when people examine their knowledge, skills, values and interpretative categories: ie. the way they interpret their actions in the social and material world (Kemmis and Wilkinson 1998). In an attempt to answer my research question the research was designed as a participatory interpretive case study, with a critical interest to inform curriculum change and development in the Further Education and Training band. What made the research participatory were the processes of observation involved and the process whereby learners conducted a mini research project in their community to make meaning of indigenous ways of knowing from the vantage point of the curriculum.

The stages of developing this study thus involved the interaction and participation of the researcher with the person from local community and the learners. Even though this was not purely action research, I adopted Kemmis and Mc Taggart's (1982) views on the stages involved in the action research process: ie. plan, act, observe and reflect. Adoption of this proposal informed stage 2 in the research process which was observing the demonstration (see section 4.3). What I did was to plan the observation session with the local community member and when the demonstration took place, the learners and I observed it. I then reflected on the process more carefully, systematically and rigorously. The rationale for following the of action research process was more on being able to structure the next data generation process and to create opportunities for contextualising learning (see section 2.4).

Another rationale for including the element of action research in this study was focused on the practice of teachers and the stages we can follow to implement the new curriculum with its new expectations of acknowledging the importance of local knowledge. To develop a case study, I used a variety of data generation techniques, which I discuss in the next section.

### **3.4 Research Techniques**

In order to gather the required data for the study to answer my research question, I used a variety of data generation techniques including documentary analysis, semi-structured interviews, observation, learners' activities, poster development and focused group discussions and interviews. The foregoing were not the only techniques used since I also kept a research journal in which I wrote information related to the research. For

example, I maintained an audit trail of data generation processes as a way of doing preliminary data analysis. The research involved a three stage process. The diagram below (Fig. 3.1) outlines what each stage involved:

### **Figure 3.1: Stages in the research process**

#### 3.4.1 Document analysis

The first research stage started with a closer look at the curriculum document (NCS) for Consumer Studies. Documentary information is likely to be relevant to every case study in the form of explicit data plans, hence the rationale for looking at the curriculum document (Yin, 2003). Yin (2003) further argues that documents can be used to corroborate and augment evidence from other sources and must be carefully used. When I did the curriculum analysis I had to uncover the silences in the materials I was working with I avoided accepting the curriculum as literal record, but rather

recognized that it might be flawed and might overlook the value of local knowledge. I had to unpack the relevance of content to the focus of the study, which was working with IK in the curriculum context.

Three learning outcomes, on which my research focused (LO2, 3 & 4) (see section 4.2), were analysed. The aims in documentary analysis were more on content analysis and how to use the document as a tool for planning and plumbing the deeper meaning of outcomes, assessment standards and curriculum concepts. The other aim was to find relationships between curriculum concepts and the concept of Indigenous Knowledge, and how the curriculum document suggests an approach to integrate this principle. My focus in the research was not only on indigenous ways of knowing but also on linking these with curriculum concepts.

What I looked for in the curriculum document was what Indigenous Knowledge is in the context of Consumer Studies and how to integrate this knowledge into curriculum? In order to answer these questions I looked very closely at what each learning outcome, assessment standard and any general information provided in the curriculum document concerning IK and context (see section 4.2). The data generated from this stage informed the interviews with the educator and the subject advisor. This stage also informed the planning of activities for learners (see section 4.4 and 4.5).

### 3.4.2 Interviews

Semi-structured interviews followed immediately after the documentary analysis. Cohen and Manion (2002) describe interviews as a means of gathering information which has a direct bearing on the research objectives. The interview involves a social and interpersonal encounter (Cohen *et al.*, 2002). I did my first interview with the Consumer Studies subject advisor. In preparation for the interviews, I negotiated access with all the respondents and scheduled the dates and times for the interviews. This interview was aimed at trying to answer what IK is and how to work with it in the curriculum context. When doing case studies, the nature of the interview is much more open-ended and a respondent may not necessarily cooperate fully in answering all the questions (Yin, 2003).

What Yin (2003) points out above made me the researcher open-minded as I prepared the interview schedules. Even during the interview, I knew that this may not satisfy my expectations. What prompted me to hold that view is that I knew that there may be problems with power relations in an interview between me and the subject advisor, and even between me and the local community member. Having thought carefully through this I asked strategic questions and even re-phrased questions when I saw that the response was not providing the expected data. Then I had the second interview with my colleague (the interview with the teacher). This interview explored ways of establishing the educational links between the fermentation concept and IK in the Consumer Studies curriculum. This interview with my colleague consumed a lot of my research time as there were postponements on the part of the colleague because of commitments she had. What I learnt was to be patient and allow space for grappling with the idea of being interviewed. Eventually, my colleague accorded me the opportunity.

I interviewed the local community member immediately after the observation process and my interest was in studying the cultural history of the preparation of fermented food as an indigenous practice. The interview also looked at the process of preparing *amarewu* and how it felt for the local community member to be involved at school by coming in and demonstrating a cultural practice to the learners. Following the interviews, a preliminary data analysis indicated many emerging issues (see table 3.1). Such emerging issues were developed further to inform other stages involved in data generation, ie. observation and focus group with learners, which accorded me deeper understanding of all the stages involved.

### 3.4.3 Observation of the demonstration of *amarewu* preparation

Stage 2: When one engages in observation of real life activities intrusion into the world of the subject occurs. This requires the researcher to be an observer or participant observer (Yin, 2003). I invited a local community member to demonstrate the preparation of *amarewu*. In preparation for the demonstration I wrote a letter to the local community member in order to seek access and consent from her to come and show learners the process of making *amarewu* (see Appendix A).

The research had a participatory element in it as the demonstration created opportunities for me and the learners to become participant observers in the process. My behaviour as an observer was more likely constrained, in that I had to observe the processes that took place and I could not be in a position of being an instructor or teacher as someone else took over (Yin, 2003). The rationale behind the choice of participant observation in the study was to try and look at the possibility of its further use in my other lessons when working with local knowledge in the curriculum.

Observational data was used to describe the setting that was observed, the activities that took place in that setting, the people who participated and the meanings of what was observed from the perspective of those observed (Patton, 1990:202). Yin (2003) suggests that to increase the reliability of observational evidence more observers should be involved. The observation process was twofold. It involved observation and participant observation that made the researcher an active participant. I had the opportunity to observe and, at the same time, to ask the demonstrator questions. So I became a co-learner. During the demonstration, the learners, the researcher and the colleague (teacher) had an observation worksheet in order to thoroughly record the whole process (see Appendix B).

The participant observers were six students, the researcher and the teacher (colleague). As the researcher, assuming the participant observation stance put me in a position to focus closely on teaching and learning processes that took place during the observation session. Finally, I took advantage of participant observation when I convened focused group discussions with learners. I interviewed the local community member immediately after the observation session and had a focused group discussion with the learners, too (Yin, 2003).

#### 3.4.4 Focus Group

The fourth method of data generation was focused group discussion and the interview with learners. Focus groups are contrived settings bringing together specifically chosen individuals to discuss a particular theme or topic, in which interaction with a group leads to data generation and learning outcomes (Cohen and Manion, 2002). The focused group discussion was the first interaction with learners. The focus group was the longest process as it involved layers of data generation.

- The first layer was to establish the learners' views on the observation process and then to explain the next activity.
- The next layer was immediately after learners submitted their activity (see section 4.5) and its aim was to unpack what learners found out in connection with the sustainability of local knowledge practices using the example of *amarewu* and what food choices people now make (see section 2.)
- The other focus group interview was one in which I wanted learners to express what they feel about learning local practices at school especially those with traditional foci. So, I hoped that learners would highlight the pros and cons involved in their learning activity and the impact of IK.
- The last focus group activity involved a presentation of a food audit of the area and a poster that learners designed showcasing the sustainability of local food with a specific focus on *amarewu* and what relation the practice had to environmental issues, like waste management and nutrition.

Member checking was done in a discussion group that I had with the learners after the demonstration observation. What was discussed was the feeling learners had during observation and after being accorded the opportunity to observe an IK practice at school. It also aimed at ways of looking at the environment and sustainability, ie. how people dealt with waste. It was hoped that would yield to an understanding of the judicious use of resources for sustainability purposes as learning outcome 3 suggests (DoE, 2003) (see section 4.2).

Another focused group interview was conducted with learners the aim of which was to share their findings from the mini research activity they did. This was aimed at gathering information from the community on people's consumption of the local foods with a particular reference to *amarewu*, the rationale behind such consumption and what food choices people make now. The learners submitted their reports and I assessed what the learners found out and this informed the focused group interview with the learners in which I was interested in their views on learning about local traditional knowledge at school and what benefits and challenges this could bring to their education and learning. Included in the activity learners were to develop posters in which they presented their findings about consumption of home-made *amarewu* vs. commercial consumption of the product, and they did an audit of traditional food still consumed in the community

**Field notes** contain the descriptive information that will permit the observer to return to that observation later during analysis and eventually permit the reader of the study findings to experience the activity observed through a research report (Patton, 1999:239). The field notes and research journal I kept were retained and were used as a supplement right through the research just to remind the researcher of what happened at each stage.

### **3.5. Data analysis**

Glaser and Strauss (1967) talk of the constant comparative method in data analysis, which is a combination of coding and categorising the data. Glaser and Strauss (1967) highlighted four stages in the constant comparative method, which compares incidents applicable to each category, integrates categories and their properties and delimits and writes the theory.

For the process of data analysis, I started coding the data, which assisted me to detect data overload and I categorised it. The first analysis was of what came out from the curriculum document concerning IK and the curriculum and the relationship of indigenous knowledge to environmental learning. The process of data analysis proceeded by analysing data from observations and following the interviews I went through the completed interview schedules to map out the themes related to my research focus. I then used colour coding to isolate the emerging issues so that issues of the same type bear the same colour code. The data emerging from the student's research and focus group was also analysed. The last phase of data analysis was from the poster presentation process that learners did in class and the analysis here aimed at establishing links with the curriculum outcomes and the environmental and sustainability focus in the consumption of the local food used as an example in this study.

What emerged from the categorization process were seven categories:

- Curriculum mobilisation-Involvement of local people
- Using context for meaningful learning
- LTSM development
- Responsible & informed consumer-optimal and sustainable use of resources
- Use of language for learning

- Cultural significance
- Skills development and entrepreneurial/economic benefits

As I carried on with the data generation process more categories emerged, and I ended up with five categories each with their own sub-categories. In order to remember categories I used colour coding, which I found meaningful as it helped to separate the data quite easily. I then carried-on to stage two of the analysis where the focus was on the comparison of incidents to the properties of a category. Afterwards, this stage I engaged in stage three of the analysis, where I refined categories and reduced and cut out what was irrelevant to my study. What was retained were issues that were raised that when triangulated with other sources seemed to be related to each other and were thus turned into sub-categories, like the last category that emerged from the first leg of the data analysis, namely skills development and entrepreneurial/economic benefits (see table 3.1). All the categories which emerged from the first leg of data analysis were refined and led to the categories in table 3.1. Then, the last step was to consolidate all the data which had emerged. The last stage involved reflections which contribute to recommendations for the use of this study by other researchers and educators.

The categories, which finally emerged from the process, were as follows:

**Table 3.1: Categories, sub-categories and sources**

CATEGORY	SUB-CATEGORY	DATA SOURCE
1. Curriculum mobilisation	-curriculum context -Learning outcomes and assessment standards -value of observation -Role of local people in curriculum activities	FGR1; FGR4 &2; DA DA; ISA ISA, IE, ILCM, FGR2 ILCM; FGR3, 4,2 &1, EI, ISA
2. Culture	-Cultural issues	ILCM; FGR2;FGR4; EI; ISA; DA; L1 &2 act
3. Learner support material development (LSM)	-Learner activities -role of educators in LSM development	DA; EI; ISA FGR1; EI; ISA
4. Language	-valuing of home language in learning situations	EI; ILCM; FGR3; DA
5. Health significance, use of resources and sustainability	-intergenerational health -skills development, entrepreneurial/economic benefits	ILCM;FGR1;FGR2 &4;L1act,2 & 3; EI; ILCM; DA

### 3.6. Ethics

In this study I worked with the subject advisor, the teacher, six learners and local community members. For any research, it is important to negotiate access (Cohen *et al.*, 2002). So, before starting with the research, I sought access to the school by writing a letter to the school principal so that he could pass it to other stakeholders (staff & SGB) (see Appendix C). Access to other participants (teacher, learners & local women) directly involved in this study was negotiated verbally and the community member by a letter. I then organised with my colleague to arrange a group of eight learners from her class to work with me. Once the issue of learners was organised, I arranged a briefing session for them to explain the research, its aim, purpose and their role in it

and I requested their support. At the start of the project eight learners were involved, but towards the end only six remained.

Confidentiality was also explained to the participants, although they did not mind their real names being used and they left the matter for me to decide. I decided to maintain their confidentiality. Another ethic that I was aware of during this case study research was respect for persons. That was made possible by negotiating with the participants the extent to which data supplied by them could be used in the write up (Bassey, 1999). All participants felt everything relevant to the study should be written up verbatim.

### **3.7 Validity and trustworthiness**

Multiple sources of information were used to provide good quality research. With the use of the triangulation process, I hoped to establish data validity and trustworthiness (Lather, 1986). The data from all interviews, focus group discussions and observation, was used to triangulate data. I managed to get adequate data and was able to provide a thick description of the findings (Maxwell 1996:95).

The raw data collected was colour coded so as to map out emerging issues. The categories that emerged cut across all the data generated by the techniques used, which confirms the validity and trustworthiness of the research. I went back to the teacher, learners and local community member to verify whether they had really said what I had documented before finalizing my research, ie. member checks in the form of face validity (Lather, 1986). The member checking led to additions of other valuable data for the case study and corrections were made where I had mis-represented the respondent. In my research journal I reflected throughout on all the processes involved.

### **3.8 Experience gained on the use of research techniques**

The semi-structured interviews accorded me an opportunity to experience the tensions that were caused by power relations during the interview. When I conducted the interview with the subject advisor, I felt a little intimidated in that she was my superior and I was not sure whether I had prepared appropriate questions for the research. During the interview, I was the one who was at ease as I noticed that the subject

advisor instead panicked a bit. I had to re-assure her that the research was meant to find answers to the question posed, which put her at ease.

The interview with the local community member was more surprising. Instead of the local community member feeling intimidated by me she was at ease, just like when she gave her demonstration, she kept on laughing every time I asked a question, and she would then give me an answer. For me, that confirmed the joy the local community member had of being given an opportunity to come and teach learners at school.

The observation allowed for a more relaxed session than any of my interactions with the other participants. The local community member was also very free and explained to the observers quite well. The reason for this lively and free attitude during the demonstration was due to the use of language which was *isiXhosa* the home language of the learners. That allowed learners to ask questions freely, which led to the local community member being able to share other interesting information about other local food and how people used to share and live in a hunger-free community. She even shared with the learners how she learnt how to cook the traditional food as a young girl.

The interaction that resulted in the process made me realize the importance of home language to learning. The scenario that prevailed was different from how I usually taught my learners in English. My observations taught me that when English is used as the Language of Teaching and Learning (LoLT), learners tend to be reserved and less active in classes. The lesson conducted by the local community member was different from my own lessons. The learners were very interested in knowing more about indigenous practices.

The techniques used gave me ideas for recommendations for teachers. What these techniques did was to provide a useful methodology for facilitating curriculum implementation in the school context.

### **3.9 Concluding Summary**

In this chapter I have described the research design for this study. What were also described were the research methods used to generate the required data to answer the research question.

I started this chapter by providing an orientation to the research, which involved an interpretive case study. I then explained the methods used to generate data collection and how in each case I undertook preliminary data analysis to inform the ensuing stages of the research. How the data was managed starting from the coding to the actual analysis which categorized emerging issues from the raw data, is also shared with the reader.

Research ethics are also discussed. Lastly, I looked at the validity and trustworthiness of the research process by reflecting on how the research was done. I hope that the results of this research will inform our practice as Consumer Studies teachers and be used for further mobilization of Indigenous Knowledge in the schools and the development of other LSM thus enabling a process of catalytic validity (Lather, 1986).

The next chapter outlines the issues that emerged in the data analysis.

## **CHAPTER 4**

### **WORKING WITH INDIGENOUS KNOWLEDGE IN THE CONSUMER STUDIES CURRICULUM**

#### **4.1 Introduction**

To answer the research question, I had to follow the research process outlined in the previous chapter dealing with indigenous ways of knowing in the Consumer Studies curriculum. In this chapter I discuss the four stage research processes I followed in attempting to work with indigenous patterns of practice and associated ways of knowing (IK).

This chapter reports on my attempt to mobilise indigenous knowledge in the Further Education and Training curriculum. It covers the following:

- Stage 1 - Curriculum analysis to identify learning outcomes related to IK (Document analysis unpacking of the learning outcomes and the interview with the subject advisor and with a colleague)
- Stage 2- Curriculum activity: Observation of a demonstration of the making of *amarewu* (Researcher's observations + learners observation records on worksheet + focus group discussion records + parent interview) all these informed the next planned learner activity.
- Stage 3 - The development and implementation of learner activities on local food choices (interpretative analysis of Stage 2, design of follow-up research activity to review home-made and commercial *amarewu* with interview follow-up + posters and food audit)
- Stage 4 - Reviewing the learning programme with particular emphasis on the role played by the teacher working with IK.

#### **4.2 Stage 1: Curriculum analysis**

This study focuses on curriculum development in context, which in essence is a learning/teaching and knowledge creation process working with indigenous knowledge on *amarewu* in the Consumer Studies curriculum.

Working from the idea of curriculum in context (See chapter 2), I undertook an analysis of the curriculum document to gain an understanding of the learning outcomes and assessment standards related to IK in order to design learning activities. The learning outcomes (LO's) and assessment standards (AS's) were used to identify learning-teaching and knowledge creation opportunities for learners within the given socio-cultural context, ie. in my learners' community, in order to work with IK related to *amarewu*. To identify these possibilities, I coded all references to IK in the curriculum document and undertook interviews with a subject advisor and a teacher to clarify a starting point for the research.

#### 4.2.1 Curriculum in context, learning outcomes and assessment standards

Three learning outcomes were analysed in the process, general guidelines and the purpose of the subject. Firstly, I had to find out what these learning outcomes said about learning and context. I began with Learning Outcome 2 (LO 2). LO 2 expects the learner "to make knowledgeable consumer choices about food within a given socio-economic and cultural context". Assessment Standard 1 in the learning outcome in Grade 10 allows opportunities for learners to discuss daily food intake and consider the food practices of various groups of people as influenced by culture, religion and socio-economic status.

"Learning Outcome 4 suggests that learners must be able "to apply knowledge and demonstrate the skills necessary to produce quality consumer products and to apply entrepreneurial knowledge and skills to market these products". "Assessment Standard 2 in this learning outcome allows opportunity for learning about principles and techniques of storing and preparing food in order to retain nutrients and quality." The outcome puts more emphasis on the fact that indigenous knowledge, skills, customs and practices must be considered in the creation of products.

In looking at the two learning outcomes together it was clear that I can use the two learning outcomes as they provide an opportunity to contextualise the curriculum. I therefore planned learning activities in consideration of these learning outcomes to create spaces for learners to interact with their context. Following up on this, I conducted interviews, first with the subject advisor and then with the teacher teaching

Consumer Studies (see Appendices D<sup>1</sup> and D<sup>2</sup>). The interviews were aimed at getting both respondents views on possible outcomes to use when working with IK.

The subject advisor saw a link between LO2 and 4 that may create a possibility for IK related to activities and using curriculum in context.

*I think LO 2 and 4, because these both allow learners to interact with their environment. In the process they are learning a lot about nutrition issues of the people in that area and even learn how to produce certain products (ie. LO4).*

The teacher also made the similar claims as the subject advisor by saying:

*LO 2 and 4, these learning outcomes would provide learners an opportunity to learn about people's food choices from various backgrounds including their's (LO 2). In LO 4 they will get the opportunity to do practical, as you know that Consumer Studies is originally Home Economics, in which there is a practical component, so the learner will get further hands on practice in learning about traditional practices in class, or the teacher can arrange hands on practice in the community, or even demonstrate for her learners if she knows the practice herself, or invite someone from the community.*

The subject advisor further made the following claims about contextualising curriculum.

*This new curriculum is OBE based you must not forget that. Where everyone is learning from each other it means that now it is no more teacher- centred but learner- centred, we must not forget that, that means contextualization will always be there (eh!) If we are trying now to make use of this OBE approach all the time we contextualise curriculum. We use everything that is around us, (ewe! Umh!)*

Gathered from this data is the fact that contextualisation of learning outcomes and assessment standards by looking at socio-structural and cultural context around a particular school seemed possible and that it can create meaningful learning spaces for learners.

Learning outcome 3 suggests that “the learner must be able to demonstrate consumer responsibility towards the sustainability of the environment, the community and self through the judicious use of resources”. “Assessment Standard 1 of this outcome allows opportunities for explaining food choices in terms of the resources available to the household, including the human and material resources needed for obtaining and preparing food and how this relates to food choices made by young consumers”. (DoE 2003:32)

Learning outcome 3 was also analysed mainly to check viability of the outcome for mobilising IK, but at the same breath checking the viability of mobilising environmental learning as it addresses the use of available resources within a particular context. If we talk of resources, human or non-human resources are to be considered. In the interviews with the teacher and subject advisor, as experts in curriculum issues, they did not directly refer to LO 3 as having possibility to mobilise IK. However, from the comments they made with regards to use of available resources, a lot came up that linked the use of resources for learning within a particular context

The subject advisor saw a possibility of using available resources in the community to contextualise curriculum and learning, when she said:

*Yes, because as I have mentioned eh! Use of environment is of utmost importance because I have already indicated that even in the preparation or planning of activities the educator considers resources in his/her community, it means that now you need to know your environment (repeat) and the people around you.*

The teacher also highlighted the importance of resources available in the community for learning.

*Teachers must feel free to use available resources both human and non-human from the learner’s community to broaden the curriculum and to provide better learning.*

The three learning outcomes I have highlighted seemed to create possibilities for IK mobilisation in the curriculum, which have been triangulated from two other data

sources. Even though the other data sources have not indicated the possibility to use LO 3, I saw a possibility for using this learning outcome too. Using context has a potential for contextualising curriculum for learning experiences that take place and the nature of Consumer Studies does allow for the use of the curriculum in context and the exploration of local learning experiences.

The curriculum document analysis and the interviews with the subject advisor and the teacher led to the identification of criteria for designing learning activity. That led to the planning of the activity based on the data which emerged from the group discussion with the learners that occurred immediately after the demonstration and the collection of observational data (see section 4.2.2). One of the issues that emerged strongly was how indigenous knowledge was learnt at home, which led me to plan an activity in which learners would observe an indigenous practice in process.

### **4.3 Stage 2: Curriculum activity: Observation of a demonstration of the making of *Amarewu***

#### 4.3.1 Value of observation

Observation was used in the study as a possible tool to understand local experiences and practices (see appendix E). The aim of using the observation was informed by what came out from Stage 1, ie. curriculum analysis, which unpacked what learning outcomes and assessment standards say about what has to be learnt by learners. It was considered appropriate to use demonstrations as one of the tools teachers can employ when working with IK.

To carry out the demonstration, I consulted a local community member who availed herself to share local knowledge on the preparation of one of the local foods' ie. *amarewu*. To record the observations and interpret the data that emerged, I designed an observation worksheet with the aim of recording the preparation of *amarewu* including the utensils and ingredients used (see Appendix B).

When I conducted an interview with the teacher in Stage 1, she confirmed the importance of demonstration as a tool which can be used to learn about practices unfamiliar to the observers, like traditional practices, when she said:

*...so we can use them (local community members) as our sources by observing these traditional practices.*

The subject advisor also confirmed the use of demonstration as appropriate in teaching and learning, whether in formal or informal settings, by stating that:

*...we can then invite someone from outside (i.e. the community) to show us how to prepare for instance imifino, amarewu, uqumatana all those.*

Following the demonstration, a focus group discussion was held with the learners to get their views on what transpired from the demonstration and whether they knew anything about *amarewu* before the activity. Learners stated that:

- All of them knew what *amarewu* was, but did not know how to prepare it.
- They also mentioned the fact that *amarewu* is not frequently prepared at their homes, with the exception of cultural rituals where women would prepare *amarewu*
- When we went over the method used in the demonstration they recapped all the steps involved, the ingredients and utensils
- They all expressed interest in the demonstration

Learners also confirmed the process of observation as a tool that they themselves have used at home, especially in learning some traditional practices:

*Learner 1(R2): I grew up in a rural area. I know how to make fire. I just watched how it was done, then that's how I learn. There was no book.*

*Learner 2 (R 1): Even at home I learnt how to milk cows by observing. I still remember everything from what I observed when I was about 9 years.*

After the focus group discussion with learners I conducted an interview with the local community member, who demonstrated *amarewu* preparation for learners. The aim of the interview was to get her views on:

- The historical and cultural significance of *amarewu* and its nutritive value.

- Her view on parental involvement at school especially in teaching and knowledge creation.
- How she felt about being invited to give a demonstration and whether she will be interested to do it in the future
- Lastly, I was interested in how she learnt the practice of making *amarewu*.

The local community member explained that historically *amarewu* was prepared as part of the daily diet from left-over porridge when there were occasions like weddings. She said:

*Amarewu ebesenziwa kwangelixa lobawo mkhulu bethu. Sikhula sisela wona naxa kukho imicimbi efana nemitshato, imibuyiso, njalo-njalo, lilonke sisithethe ukuba ama-rewu enziwe xa kukho lomcimbi, ukwenzela ukuba abantu abeze kuzimasa bagcinwe behluthi benganxanwanga ngelixesha umcimbi usaqhubayo. Nabantu xa besiya kusebenza emasimini bebedla ngokuwaphata ukwenzela ukuba basele xa benxaniwe phantsi kwengqatsini yelanga.*

*Amarewu was prepared and used long before by our forefathers. We grew up in our homes drinking amarewu and during traditional ceremonies, like weddings, cow slaughtering, etc. amarewu was always prepared for those occasions ...whilst the ceremony was in progress, people would be given amarewu to drink. .When people went to work in the fields they would carry amarewu so as to quench their thirst while working in the hot sun.*

The local community member expressed her joy and appreciated the fact that the cultural norms are being breeched by the teacher, ie. by having both girls and boys in her class observing *amarewu making* which is culturally unusual because only girls take part in traditional household chores and especially for food preparation. She said:

*Kuyabonakala okukuba abantwana abaninzi abasazi isithethe noba ndithe kuqala banolwazi, kuba beye esikolweni. Ndiyabona okokuba kubantwana ebendisebenza nabo banomdla kwisithethe sabo. Kwaye ndiyabona ukuba abafundi bakho ngamantombazana nabafana intle kakhulu lo nto kuba ibonisa ukuba baza kusebenzisana ukugcina izithethe zethu*

*It is evident that many children do not know cultural practices, even though I said earlier they are clever. What is important is that it is evident that our children want to learn more about cultural practices and want to be shown that. I see that your class has both girls and boys, which is wonderful because both will then contribute to preserving our culture.*

*Uyabona ngokwesintu abantwana abangamakhwenkwe, bazintloko zamakhaya amantombazana alungiselelwa ukuba babe ngamakhosikazi abo kwaye baba phekele, inomdla kakhulu le nto ndiyibone apha namhlanje*

This means:

*Traditionally boys are not cooking, they are heads of the family and women are to cook for them as their wives, so this is very interesting what I see here.*

The local community member felt that as community members they will be very glad to assist where teachers need help. She said:

*He! he! Ndiyavuya kakhulu, ndingumntu othanda izinto ezintle kwaye ndiyathanda ukwabelana nabanye abantu ngolwazi endinalo kwaye xa ndiyenza into ndiyenza ngenene nangenyaniso.*

Meaning:

*(Laughing) He! I am very happy, and I am a very helpful person and I also like to share my knowledge if I know something and when I do something, I do it seriously and diligently.*

She even mentioned that:

*Ndicinga ukuba nabanye omama banganomdla wokuza esikolweni babelana ngolwazi lwabo nabantwana.*

*I think that's wonderful and I think even other mothers should have the zeal to come along and share their knowledge with students.*

The local community member explained the nutritional value of *amarewu* saying:

*Amarewu anazo izakha mzimba kwaye atyiwa nangubanina ofunayo  
ayingo wabantu abahluphekayo  
Amarewu contains nutrients and is not only for poor people.*

Further supporting what she has said the local community member said:

*Amarewu anezakhamzimba, anceda nabantu abagula yiswekile nabagula  
lucinezeleko lwegazi, nabanengculaza kuba babenamandla kwaye umntu  
uhluthe imini yonke kuba Irewu lintswane.*

*It's because amarewu is nutritious, like if you wake up in the morning  
without any food and if you just drink a mug of amarewu you will be full  
the whole day and people who are diabetic or have high blood pressure,  
and HIV positive should drink amarewu as it helps to give them strength.*

The local community member shared her own experiences on how, as young girls, she learnt household chores including cooking:

*Umzekelo xa omama bethu bepheka sisenga mantombazanana besidla ngoku  
babukela sijonge ezizinto bazenzayo, nabo ke bebedla ngoku sinika  
imisetyenzana enje ngokuba kuthiwe ndiphatele amanzi ndizokugalelela apha  
okanye bathi phemba lamlilo, ngalo lonke eloxesha sibukele besidla  
ngokuyifunama inkcazelo yokuba kutheni le nto kusenzeka le nto yenzelwa ntoni.*

*For example when our mothers were preparing these traditional foods, they  
would give us little chores by sending us to fetch water or to fan the fire as it  
was going out, so through observing what they were doing as young girls we  
would learn how to cook, and during the process certain explanations would  
emerge.*

The statements of the respondents support the use of demonstration as a process that teachers can use to mobilise IK. Another observation I made, which confirms the way that learning takes place in informal contexts, ie. at home, is that learners were able to relate to what the community member showed them even after the demonstration.

Even though the observation was conducted at school, as a teacher I allowed an informal setting to prevail.

#### 4.3.2 Role of parents or local community members in educational settings

Reference to curriculum in context also means that human resources available in a particular context have to be considered. I considered the role of parents or local people as resource persons and explored their role in the teaching-learning and knowledge creation process. Having explored the curriculum, it was clear that the people who possess indigenous knowledge in a particular community can be consulted. For instance Assessment Standard 1 (LO 2) will create opportunities in which learners can go out and ask local people about certain cultural practices (see section 4.2.1).

Again, Assessment Standard 2 (LO 4), learners will be able to learn more about preparation of food. Indigenous knowledge will therefore be considered in order to show these learners how local community members can be involved (see section 4.2.1)

During my interview with the subject advisor, she explained the role that can be played by local community members in mobilising IK in curriculum development as very meaningful.

*Teachers may not be able to teach children ...about traditional foods, like umqombothi or amarewu, as they may not know how to prepare umqombothi and, we can then invite someone from the outside community to show us how to prepare, for instance, imifino, amarewu, uqumatana. All these foods are important in our culture, but the kids don't know about the preparation of uqumatana, umxhaxha- and these food involve unique methods of cooking and food systems.*

The teacher also saw the local people's role as meaningful in knowledge construction as they would know a lot about traditional practices.

*...invite someone from the community. Teachers must feel free to use available resources both human and non-human from the learner's community to broaden the curriculum and to provide better learning.*

The learners also attached value to the involvement of their parents at school especially to teach them IK practices.

Learner 1 (R3) said:

*Yah! I think that would be beneficial to our teachers as they do not have time to prepare these traditional things. Then a person from outside the school who has time, when she/he comes to school she/he will bring indigenous knowledge to the teachers. Teachers will acquire skills and pass them to the learners and learners will grow having that knowledge. The local people will be perfect in those skills and can even open up a school (centre of excellence) to share that knowledge.*

The above-mentioned learner even saw a further opportunity for local community members to open a centre of excellence in which the indigenous ways of knowing would be shared with learners and other community members and where learners may go after formal schooling.

Learner 2 (R4) said:

*Parents want to come here to see how we learn and share their knowledge with us and there won't be any person who would then say they do not know what is going on at school and do not want to come to school.*

Learner 3 (R2) said:

*I just want to add that I don't think that they (the parents) will be offended because at the end they want us to benefit and they want to be proud of us. By coming here to school they will be making us proud and doing things we don't know so that we can be more interested about things in our culture because most parents are really, really trying and they do not know how to fight the fact that there is loss of cultural knowledge. We need to ensure that we know we are black and we will always be.*

It came out clear that the use of local knowledge can be useful to provide opportunities of learning using a formal curriculum interchangeably with an informal

curriculum (local knowledge), and using the knowledge of local community members, from what I gathered in this study is considered as very valuable. The use of the local community member's knowledge was not considered to be used just to extract knowledge from them without them being involved. Value was attached by all the respondents to the fact that community members must be invited to school to teach learners and to contribute to the education of the younger generation.

#### 4.3.3 Cultural significance of contextualised content

During the focus group discussion with the learners, they raised issues regarding the cultural significance of the content to be covered in IK integration. These issues were very interesting in that they highlighted the importance of cultural practices for learners and some of them raised the question that if IK is taught at schools some learners would think that we are rather taking them backwards (old-fashioned).

##### Learner 1 (R1)

*I can say that there are challenges because if we are doing something like old traditional food and bring it here at school some students would take us to be stubborn or what, because they won't know what is done and forgetting that we lost our roots somewhere, somehow and we must bring them back. By using these old practices or home food at school it will be an opportunity for other people who don't know our culture exactly to revitalize it.*

The same learner raised another interesting point on the integration of cultural practices in the curriculum especially for male learners:

*With us boys we wouldn't like to be seen cooking or eating imifino, with amarewu no problem we can drink but not its preparation part, that's girls work.*

##### Learner 2 (R 4)

*As she has said already, with these food people associate them as being for the poor. If we bring them to school, then others won't understand and won't*

*be interested and would think that we taking them back to olden times and will also say that we live in modern times. But I do not align myself with those thoughts because I think IK will help us to show other people that this is our culture and we believe in it. Those who don't believe in it and align themselves with it simply don't practice their culture.*

Learner 3 (R2)

*Yes we can solve those attitudes. It's not that you are poor when you are eating traditional food, but you're going back to your culture."*

The teacher shared her views with the learners:

*I think that teachers would experience resistance because culturally boys do not cook. This is the experience I have currently in Home Economics and I see it as being worse if you would do a practical lesson with the learners to grind maize or go out and pick wild imifino. It's even worse that boys culturally do not eat imifino. Culturally boys depend on women to prepare food for them, but, due to changes that took place in South Africa, boys were allowed to learn Home Economics too, but even so there were challenges as mentioned.*

The subject advisor shared the same view about contextualising content that;

*According to Xhosa culture boys do not eat imifino, but they will drink amarewu. But the challenge that teachers would come across resistance in as far as requiring both girls and boys to prepare certain kinds of food like imifino. But I think teachers must be sensitive to what they want their learners to learn.*

The above statements concerned related to what the community member raised during the interview, that there would be cultural aspects that may be brought up by these practices as some chores at home are only for girls, not for boys.

Therefore the challenge that face teachers as far as IK mobilisation is concerned and that content of teaching to teach learners has cultural implications, is referred to the

respondents. But this does not prevent us from not being creative and innovative in the approach they will use to develop curriculum in context.

#### 4.3.4 Nutrition behind *amarewu* as local food choice

To develop meaningful learning in curriculum development work, content needs to be carefully selected, as mentioned in section 4.2.3 in which learners raised the cultural issues that some of the content that would be learnt in IK will be contrary to their way of life, ie. culture. In planning for this study I carefully considered the possibility of using *amarewu* as an example to use to explore the associated ways of knowing about intergenerational health.

When planning the focus group interview with the learners, it never struck my mind that selecting *amarewu* would provoke a discussion on cultural roles. The rationale behind the selection was informed by intergenerational knowledge I had as a researcher about the nutritional value of the particular local food.

The data that emerged confirmed the perception I had on the nutritional value of local food: The subject advisor said:

*...For instance, when people are suffering from various diseases it's always mentioned that the natural plants are good, and we don't know those plants as learned people its even worse with our children. So people from outside can come with various plants that can be of help our health and in our meals. For instance, if you want to make imifino some people think that imifino is made from spinach and cabbage forgetting that there are natural plants like ihlaba, umsobosobo, and onojenti, all of which that can make something that can be very (eh!) healthy for us all.*

The teacher also explained the nutritional value of local traditional food:

*My grandmother used to tell me how healthy and strong they were because they ate carbohydrates, fresh vegetables like imifino, milk and amasi and they occasionally ate meat, but will eat beans to*

*supplement proteins. So, with the modern diet, we are exposed to more sugary and fatty food and that's why many of us now suffer from various diseases like heart diseases, etc.*

The learners also supported the idea that traditional food is healthy: Learner 1 (R2) said:

*Honestly there is nothing wonderful about modern food, it's just that we look down on our own culture and many people are unaware of the nutritional value of the food in our culture*

Learner 2 (R1):

*You see many people are dying because we are now eating food that we do not know. At home my grandmother was born in 1913. She is still strong and even works in the garden and still eats traditional food, like umngqusho, amarewu, etc.*

*We eat modern food and we die young and we can't even work in the garden."*

What I gathered from the data is that and people still believe that local food is nutritious. The nutritional composition of *amarewu* and other traditional foods were not interpreted using propositional knowledge but were based on first hand experience.

Much as generalisation that confirmed the nutritional value of *amarewu* taking into consideration the praise all the respondents gave to local food.

#### **4.4 Stage 3 –Development and implementation of learner's activities**

##### 4.4.1 Developing learner activities

As a follow up to Stage 2 and seeing the success of observation activity, I developed and implemented other learning activities. Immediately after the focus group discussion with the learners, I gave learners a research activity as an assignment and I explained the criteria and intentionality to them and how they were to do the activity (see Appendix F).

Developing learner support material development is part of teaching and learning. Sometimes teachers perform activities with our learners and as a separate entity to the actual teaching and learning processes. For this study, I developed the worksheet for a community research activity that learners had to do as part of the learning and knowledge making process as an audit. I gave learners activity worksheets and I clearly explained to them from the start that the activities were to be assessed informally, ie. they won't be marked. The main purpose was for learners to gather information, which would add value to the research process then in progress.

The other intention of the activities was to gauge the value of IK for learners and the level of learning attained in the process. So I used the activities as learner support material to support learners to learn. I developed the activities as a researcher and the fact that I was a teacher was also advantageous in to the process.

When I conducted the interview with the subject advisor, she had a different view on whether teachers should develop LSM to support learning she said:

*... At this stage teachers can develop materials, but I am not sure of them of being (Eh!Eh!) good material developers except people who have been trained in doing that and we have the people from the Department. Because we (pause), not all of us as we sitting here in the DoE, are able to develop material.*

*There are people who were taken to Pretoria to develop material.*

The teacher in essence supported the development of LSM by teachers, but her response concerning what LSM is differed in interpretation to the subject advisor's response.

The teacher said:

*... As teachers, we can even develop our own lesson plans, learner activities or worksheets and assessment tools, eg. rubrics, tests, etc., in order to support our learners to learn especially as we are to begin teaching NCS.*

I think what the subject advisor refers to is more complex LSM development in the form of textbooks and not to what the teacher was referring to while busy with the actual teaching and learning in the classroom, for example, lesson plans and activity worksheets.

What the above insights on the development of learner support learner support material suggest that LSM should be taken into consideration before learning is planned. When planning, I thought of activities relevant to the learning outcomes and assessment standards that were to be covered in the study. Also the question of LSM should be taken into consideration in understanding curriculum changes.

#### 4.4.2 Learning by learners- the contribution of learners in the mobilisation process

In any curriculum development process, as when learners are to carry out an activity, the intention is always to gauge the learning that learners have already achieved. After learners have performed any activity, there should always be some kind of assessment. This study was not focussing on formal assessment, but to gauge what learners have learnt. In that respect learners' reports were received to gauge their understanding of the activity they had to carry out and how they interpreted their findings.

I gave learners a week to carry out the research activity and I instructed them to write a report on their findings. The research activity aimed at finding out whether people are still consuming *amarewu*, whether these people know how to prepare *amarewu* and what their choices are with regarding to home-made and commercial *amarewu* and why they prefer one product over the other. For this activity, learners were given two categories of people to interview, an adult and a teenager. Gender was not an issue, ie. they could interview males or females depending on who was available.

What emerged from the research reports was that two learners interviewed two male teenagers, one male adult and one woman. Then four other learners chose all females, both adults and teenagers. These reports showed that all adults knew something about *amarewu* and they preferred the home-made, although they felt that most people do not prepare home-made *amarewu* but prefer to buy it because they do not have time to prepare it. So they prefer the commercial *amarewu*. With regards to nutritional value,

home-made *amarewu* is nutritious and fresh, and provide those who consume it with lots of energy.

The teenagers expressed that they know nothing about *amarewu* since four of the teenagers had never tasted *amarewu* as it is not prepared at home, let alone even tasting even the commercial product, for energy, they drink other energy drinks such as “Energade and Red Bull.” (see Appendix G)

Immediately after reviewing the learner’s reports, I conducted a focus group interview with them the aim of which was to explore understanding of indigenous knowledge and what value the integration of IK could bring to them as young people. Having received feedback from the people they interviewed, there was a possibility of integrating IK in the school curriculum. My other interest was on the value of local knowledge and whether it could be trusted since it is not documented anywhere.

Learners made the following comments about their understanding of IK:

Learner 1 (R1)

*Yes, IK can be brought to school because everything that we do at home must be practiced at school too. I mean everything that we do we must bring to school and if we are wrong, we will see that and go back home and see how it’s done.*

Learner 2 (R 2)

*I think bringing knowledge from home to school is better because it can help some of the people at home who have no education, to be aware of things they do that may be dangerous to their lives. So if we practice them here at school, we can go back home and teach them. In this way we will be integrating our school knowledge with their local knowledge and we can also learn from them.*

Learner 3 (R3)

*It’s like (Yah!) They have got the skill we like. Yah! And we have knowledge and they have general knowledge of preparation of*

*amarewu and we at least have information about its nutritional value so we can work together with local community members to make sense of all these practices, both local and scientific. So I think, as learners, we can contribute to the development of new ways of knowledge as we would be learning a lot of things from our background at school.*

So learners saw themselves as contributors to IK mobilisation through activities they do at school, which support the integration of IK into the school curriculum. The other activity that was arranged with the learners was a poster and audit presentation. The posters (see Appendix H) they developed raised to important issues about:

- Good nutrition
- Local food choice
- Disease mitigation
- Energy giving food

The audits they presented also showed that people in the area do not really consume traditional food. From the lists they had, it was evident that *amarewu, umgqusho, amasi nophokoqo, imifino, intyabontyi* were commonly used by people, but this was not an everyday occurrence (see Appendix I). It was therefore evident that people used a mixture of Western and traditional diets. What was striking was that learners wrote these traditional foods in their home language and even others wrote some words on their posters in Xhosa.

#### 4.4.3 Use of language for learning

Language is one of the tools used to facilitate learning. Language can be a barrier to effective learning and therefore it has to be sensitively used to enable learners to understand what is being learnt. This helps learners to develop understanding of concepts and content. The NCS document states clearly that: “Consumer Studies educates learners to be wise consumers by developing knowledge, skills, values and attitudes to communicate effectively using visual, symbolic and language skills in various modes” (DoE 2003:9 ). The issue of language usage for learning came out strongly especially for IK mobilisation in the curriculum.

The teacher said:

*For Xhosa speaking learners, I see it as an opportunity to teach better with understanding if their home language is used in class or when learning about traditional aspects. So I see it would be appropriate for both teachers and learners to be flexible in using mixed languages.*

The teacher further expressed the importance of writing LSM in home language;

*Yes, for instance imifino will be interpreted by them, as a nutritious dish or relish. For instance corn (inkobe) should be written in Xhosa. Small inscriptions in English should also be written to allow further explanation and understanding.*

When I conducted the interview with the local community member I used my observations on how learners related to her and how they showed interest. So I asked her views about the importance of language and learning. When I did that, I took into consideration that the response to the question may not be academic, owing to the level of literacy of the parents in the area.

The local community member also attached value to the importance of home language in learning especially if the learner is learning about cultural practices because the meaning of such knowledge might be compromised:

*Asiyanga kaloku thina esikolweni, ngoko kubalulekile ukuba sithethe ngolwimi lwethu xa sinikezela ngolulwazi. Kamva ke kuyakuthi kuguqulwe kulwimi lwase Silingwiniukwenzela abo bangaqondiyo. Kodwa ukwenzela ukuba kugcinakale ubunzulu bolwazi lwesiXhosa kubalulekile ukuba kubhalwe inkcazelo eguqulelweyo ecaleni kwesiXhosa.*

*We have not gone to school. It is important, therefore, that we communicate in our local language. Then you can then begin to translate that knowledge into English to help those who don't understand. But the authenticity of the original language must be kept and next to that the English explanation is be written.*

Having also observed the demonstration, I saw it appropriate during the interview with the learners to ask them about the value of language in learning. The reason for raising the question was that I observed that learners were asking the demonstrator questions freely unlike in my normal classes.

The reason was that *Xhosa* was used right through the medium of instruction during the demonstration and so learners related to it was their home language (see chapter 2).

Learners had similar views to other respondents about the use of language.

Learner 1(R2)

*I think that such knowledge must be recorded using Xhosa. If one does not understand, an explanation must be given. Our parents are used to speak Xhosa so they do understand it and cannot even speak English. So the words can be written in Xhosa and then next to those words an English explanation can be put on the side.*

Learner 2 (R3)

*I think that local knowledge must be recorded in Xhosa because you cannot change Umphothulo and write it in English. But a brief explanation in English could help one to understand the meaning. So that one doesn't get confused this would help him/her understand exactly what is being referred to.*

Learner 3 (R1)

*Like amarewu, there is commercial one. You don't see the name written in English, the original word as part of the language and is inscribed on the package and then further information is then written in English. But the word amarewu doesn't change.*

Learner 1(R2) again supporting learner 3

*We are interested in amarewu if we are going to learn about them not changing amarewu.*

The use of language came out strongly as very significant in teaching, learning and the knowledge making processes.

#### **4.5 Stage 4: Reviewing of the learning programme and the role played by the teachers working with IK**

I started by looking at my role, which was organising and planning educational activities. To develop learner support material, the route I took in developing a learning programme unit started with document analysis in which the LO's and As's viability for the development of activities was reviewed because it would create learning opportunities with particular reference to learner's culture.

I then adopted an activity-based learning approach for the learning programme developed as that would allow active learning for learners. The learning programme was the learner support material, and the role I played was to develop that material for supporting the learner's learning and knowledge creation.

The development of materials by teachers was interpreted differently. During the interview with the subject advisor, the feeling was that teachers cannot be good material developers. However, with the teacher supported the idea of LSM development by teachers. The subject advisor was more explicit in her view on the role teachers can play in the process of developing curriculum in context.

*...Even educators now are going to see the need for writing books and other materials because now the books we are having are of the old syllabus. Now, for Consumer Studies education, we can add more information, like when I mentioned traditional dishes we now mean traditional ceremonies.*

The teacher saw the role of teachers in the process of IK mobilisation as very important and enquiry based. She said:

*Teachers have to consult and contact elderly people. They have to go round and seek information because some of the teachers themselves grew up in urban areas and they don't know some of the traditional practices.*

What I concluded from the data is that there is a lot that needs to be done by teachers in the process of networking with more knowledgeable community members in order to develop meaningful learning experiences for learners.

#### **4.6 Concluding Summary**

In this chapter I presented data generated from the research and outlined the process followed during the mobilisation of indigenous knowledge including the analysis of the curriculum document, observation of local food preparation, learner activities as a way of contributing to IK mobilisation, how learners learn was reviewed and the role I played as the teacher.

From the data, a number of issues emerged including possibility of contextualising the curriculum. This was made explicit by insights learners shared in the focus group interview about linking concepts in the curriculum concepts to indigenous knowledge concepts. For example making sense of concepts like fermentation (*ukuvundisa*), ferment or yeast (*umlumiso*), they gathered during the demonstration. Evident in the study was the issue of the complimentary nature of IK and Western knowledge thus allowing the mobilisation of IK within the school context. Emerging, too, is the significance of indigenous knowledge parents have and how this intergenerational knowledge can contribute to knowledge construction processes of our learners. The other issues that emerged concerned health and significance of local (traditional) food, the use of language in the education process, the development of learner support material and cultural issues to consider when working with indigenous knowledge. The data triangulation from various sources confirmed the validity of data that emerged.

The next chapter discusses the research findings in more depth.

## **CHAPTER 5**

### **ISSUES TO CONSIDER WHEN MOBILISING IK**

#### **5.1 Introduction**

In this chapter I discuss the evidence presented in the previous chapter and the literature reviewed in chapter two to clarify how to work with indigenous knowledge in the Consumer Studies curriculum. The previous chapter outlined the stages followed to gather evidence in my attempt to integrate indigenous knowledge on *amarewu* in my lessons. The findings have been structured according to the categories and sub-categories that emerged during data analysis as I tried to answer the research question.

The discussion is developed round

- the challenge of working with the OBE curriculum in context and
- parental involvement in educational processes.

It is centred on the value of local knowledge, the cultural significance of contextualised content, the cultural issues regarding gender stereotypes, the use of language in learning and finally, issues to consider when developing a learning programme involving IK particularly the role of the teacher in IK work. These are all issues to be considered by the teacher when working with IK. These issues inform recommendations which are discussed in the next chapter.

#### **5.2 Working with the OBE curriculum:**

As part of its social goals, the government has taken upon its shoulders to transform the education system of this country through revision of the curriculum. Embedded within the new national curriculum statements is the social goal of changing past imbalances (see section 2.3.1). This study contributes to the development of knowledge in as far as previously marginalised black communities are concerned. In particular it aims at acknowledging the value of indigenous African practices. As the researcher in this study, I aimed at contributing to the rehabilitation process of African children that have been cut off from their roots and moved from one cultural track to another (Odora-Hoppers, 1993:105). The key people who will benefit through the implementation of

the new national curriculum statements that now incorporate the wisdom of African societies to be learnt in schools are youth of this country.

Therefore, it was imperative therefore for me as a teacher conducting this study to be aware of the curriculum transformation process in the South African context (see chapter 2) in order to bridge the existing knowledge gap.

### 5.2.1 Curriculum in context

As the curriculum statements advocate the valuing of indigenous knowledge (see section 2.3.1), teachers are engaged in processes of curriculum development in context to realise the social goals of the country. As mentioned in chapter 4, this study focused on curriculum development in context, which in essence is a learning-teaching and knowledge creation process, with the aim of integrating indigenous knowledge in the Consumer Studies curriculum.

The NCS characterises a critical interest curriculum, as I have mentioned earlier (Cornbleth, 1990), where there has been a shift from a technocratic curriculum that only views a curriculum as a tangible product, usually in the form of a document or plan for instruction in a particular subject. However, the actual day-to-day interactions of students, teachers, knowledge and milieu are now considered. The NCS sees curriculum construction as an ongoing social activity that is shaped by various contextual influences within and beyond the classroom, as suggested by (Cornbleth, 1990:24).

As the teacher in this study, I was aware of both the structural and socio-cultural contexts of learners (Cornbleth, 1990) and I used the local context which was more suited to the experiences of learners DoE (2003:24). Shava (2000) recommends that educational approaches are contextual so as to enhance the self-esteem of African mother-tongue learners, who should be encouraged to bring in and share their experiences in the learning situation. Thus, it was important that I started by contextualising the LO's and AS's in order to create meaningful experiences for the learners. This was done by first unpacking the potential learning outcomes and assessment standards (see chapter 4).

### 5.2.2. Relevance of learning outcomes (LO's) and assessment standards (AS's)

To conceptualise the idea of curriculum development in context, three learning outcomes and one assessment standard in each learning outcome were analysed (see chapter 4).

The intention for analysing these learning outcomes and assessment standards was to unpack what is said about the use of context in learning processes. What emerged from the curriculum analysis was that content and context are clearly explained and tabled in the curriculum document to support the attainment of assessment standards (DoE, 2003:24) including proper guidance on what is to be covered in the curriculum. I was aware that LO's and AS's prescribe what is to be learnt and act as a guiding framework to use when planning lessons. This allowed me to be flexible in the choice content of for this study, as the curriculum relates to a critical curriculum (Cornbleth, 1990), and I chose contextually relevant content.

The content was relevant to learners' experiences and the focus was on fermented grain food and the example of the food that learners were familiar with was chosen ie. *amarewu*. The content chosen was aimed at understanding the influences on people's food choices in the immediate community particularly *amarewu* consumption, if the people knew how to prepare this local food. The contextualisation of curriculum LO's and AS's proved possible in relation to the content that was used in this study which was on fermented foods and people's food choices. As learners were able to report on local people's food choices related to fermented foods, they interpreted the consumption of *amarewu* by the people in the community. This was made possible by what the Assessment Standards expected the learners to know and their activities were planned as such.

In support of Cornbleth's (1990) view on curriculum as a contextualised social process is (Outcomes Based Education (OBE)) embedded in the new curriculum to ensure active learning and participation in educational processes. I was aware of the OBE approach for better teaching and learning, which was alluded to by the subject advisor in the interview and the curriculum statement also supports this approach. This approach ensures effective implementation of the LO's and AS's.

The activities that I planned for this study were OBE orientated as the activities promoted active learning for learners. After reviewing the curriculum statement, it was clear that the curriculum provided opportunities for learners to interact with their environmental setting (context) while learning and active learning centred on OBE approach was possible. The data also indicated the possibility of using context for learning and this enabled experiential learning in a local context (see section 4.2.1). Thus a closer look at learning outcomes and assessment standards enabled exploration of interactive methodologies when working with IK.

### **5.3. Working with local knowledge**

Social constructivism (Moll, 2002) relates to what Cornbleth (1990) and Grundy (1987) are advocating as their approach to curriculum work, which allows the interaction of learners with the setting and with a more knowledgeable person (adult or peer), and in the process they communicate using the vernacular. Cornbleth (1990) states the imperative to contextualise the curriculum to take into account the interest and aspirations of the local community. Masuku (1999) also states that teaching and learning of indigenous knowledge should not be confined to school because it is learned from parents at home.

Hence, I decided to invite a local community member or parent to come and demonstrate the local practice to learners at school. This study in a way created another dimension to the learning context because the classroom was transformed to accommodate a local community member knowledgeable in sharing indigenous knowledge as she took up the platform as the teacher for the day. That created an opportunity to uncover the value of local knowledge in the formal schooling setting.

#### **5.3.1 Observation as the possible tool in understanding local experiences**

Grundy (1987) emphasises curriculum as praxis, which ensures interaction and reflection in the educational process. In Stage 2 a local community member was invited to conduct a demonstration, as mentioned above (see section 4.3), Grundy's view of curriculum as praxis informed the decisions made in this study. The aim was to enable a contribution which can be made by community members in formal

education settings, ie. at schools, by teaching learners what they know about indigenous knowledge.

The interaction and reflection that took place in an educational setting between the learners and the parent (demonstrator) were hoped to lead to the valuing of local knowledge. What the demonstration aimed at, both directly and indirectly, was to test the value of local knowledge for today's youth and the possibility of integrating local knowledge with propositional knowledge in the Consumer Studies NCS.

The pedagogical nature of Consumer Studies promotes the use of practical (experiential) learning as one method of integrating theory and practice. During the practical, a demonstration was done to show learners the steps necessary to be followed when preparing a particular dish, for instance. During the demonstration, the teacher, being more knowledgeable, will interact with the learners, scaffold and mediate terminology and other processes learners are not familiar with (Baumann, 1997). During the *amarewu* making demonstration, the demonstrator did exactly the same thing as she explained each step to the learners and answered questions the learners asked her to bridge the knowledge gap.

What transpired during the observation of the demonstration was the sharing of intergenerational knowledge. For instance, one learner asked why the porridge was left to cool before adding the ferment. The response related to scientific knowledge in that the ferment would not have the power to ferment the porridge, as it would be destroyed by warmth. The learner related to this from his previous lesson on fermentation in the science class and in bread making as the use of luke-warm water is used so as not to dissipate the reaction power of the added yeast.

What was gathered from the process was that involving local community members or parents in educational processes can be explored and is a meaningful exercise because local knowledge is shared with the learners.

What they will be teaching learners relates to what Kachilonda (2005:76) saw in his study that "local knowledge is practically orientated and is rooted in the experiences and realities acquired after years of involvement with it", and community members are relevant information sources for indigenous practices. In the light of what

Kachilonda (2005) states the local community member clearly articulated the steps to follow and the ingredients and the utensils to use and how to check the readiness of *amarewu* for the learners, which clearly indicated that she knew exactly what she was doing from actual practice. She shared with the learners that she learnt the process through observation at home and that such experiences led her to be an expert in the preparation of *amarewu*. She said that she is willing to share her knowledge with children, including other indigenous practices and believed that even other community members or parents would do the same (see chapter 4).

It was evident that demonstrations and observations based on them can be used effectively in both formal and informal settings, thus enhancing experiential learning and the sharing of intergenerational knowledge.

### 5.3.2 Value of local knowledge and parental involvement for learners

Greiner (1998) refers to IK as the unique, traditional local knowledge that exists within and developed around the specific conditions of women and men in a particular geographic area. Such knowledge is dynamic: and new knowledge is continually added, hence the notion of intergenerational knowledge (O'Donoghue and Neluvhalani, 2002).

The re-acknowledgement that indigenous knowledge systems are to be integrated in the existing curriculum is seen to encourage learners to draw on their cultural practices and experiences, as they negotiate and grapple with new situations and unfamiliar terrain (Seepe 2000). Such was the case in this study as indigenous knowledge was integrated into the curriculum. As a teacher, I was aware that IK will be an unfamiliar terrain to learners in the school context, although some may be familiar with those practices at home. Therefore, the study suggests a careful selection of content and innovativeness when working with IK.

We all have a social habitus which is an orientating capital for our perspectives in and for everyday life (Bourdieu, cited in O'Donoghue and Neluvhalani, 2002). Similarly, the challenge faced by all of us is determining what is indigenous in stories that are shared in our communities to be able to adopt such knowledge for use in curriculum work. This becomes a challenge because of the way IK is transmitted, which is oral as IK is not documented and this makes it vulnerable to rapid change especially when

people are displaced or when young people acquire values and lifestyles different from those of their ancestors (Greiner, 1998). Therefore, the social habitus, ie. the lifestyle, values, dispositions and expectations of a social group, change (Bourdieu, cited in Lotz-Sisitka 2002).

The learners and the teacher raised the same concerns about bringing IK into the curriculum, which some learners reject because they see it as waste of time and meaningless as they now live in modern times. But through careful integration and the consideration of many issues, like culture, context and available resources those learners might develop interest in time. Such was the view expressed by the respondents.

In spite of the concerns expressed above about culture and the feelings of some learners, the learners attached value to the involvement of local people at schools (in the interview) and felt that the local knowledge they will be sharing would not only benefit them, but also teachers. So they had respect for local knowledge in their own educational and development, and believed it had significance for teachers, too.

The data that emerged from interviews with the subject advisor, the teacher, the community member and the learners supported the involvement of parents. If the person is knowledgeable and even if he/she is not a parent, he/she can be invited to share his/her local knowledge with the learners. There are challenges, though, with the involvement of parents. I was very careful not to dominate that learning encounter it would have intimidated the parent. This was raised by the community member, even though she was not intimidated by my presence during the demonstration. Other community members might be intimidated by the presence of learned people, like teachers.

Parental involvement in the study encouraged learners to respect their parents and other local community members because they now perceived parents to be of value to the community and the school because of their unique indigenous knowledge. Such was the feeling learners expressed. Therefore, local knowledge shared with them about how to make *amarewu* led to them valuing of this indigenous food as relevant and related to curriculum content.

Asafo-Adjei (2003) recommends continuous mobilization of IK in the FET curriculum, because of its value for meaningful learning encounters for learners. This study clearly showed from various sources that local knowledge and parental involvement can be of value.

Indigenous knowledge is seen as intergenerational and can be appropriated within a particular cultural group (O'Donoghue and Neluvhalani, 2002). The use of curriculum in context means the re-appropriation of knowledge in a different context, ie. the school context, and in the process the meaning-making propensity of indigenous practices was experienced by learners too. The respondents (learners, subject advisor and teacher) acknowledged the value of local knowledge and parental involvement, which they thought can be trusted.

#### **5.4 Cultural significance of contextualised content**

In my view culture is the way of life within a particular group and as such life is unique to that particular group. Culture includes language, food, clothing, rituals, and so on. Culture as dynamic and it changes with time. What has emerged regarding people's lifestyle choices including food choices has a bearing on the dynamic changing character of culture.

The data showed that some people, such as the learners at school may not fully accept the introduction of indigenous practices as part of the content of the curriculum. The reason was based on changing cultural trends and how their lifestyles have changed. In spite of what emerged from data sources, it was possible to use cultural content in learning experiences as a way of contributing to cultural revitalisation particularly for the younger generation.

##### **5.4.1 Cultural issues that may affect meaningful learning**

Lemmer (1993) states that "the school transmits culture to its learners in the form of knowledge and skills and the aims of the school and education are detailed in the official curriculum". Lemmer further notes that the curriculum operates on two levels, the intentional and the unintentional, and sees the curriculum as capable of perpetuating existing racial and gender divisions in society.

Gender stereotyping is an issue that emerged during the interview with learners. One learner, a male, expressed his opinion that, as boys, they would not be comfortable to be seen preparing *amarewu* because that is girls' work. The subject advisor had the same view and she explained that teachers, who currently teach Home Economics, are experiencing problems with their male learners because during practical lessons, boys are reluctant to cook as they associate cooking with females (see Appendices D<sup>1</sup> and D<sup>4</sup>). The unintentional curriculum is not planned but, owing to people's experiences and knowledge, it emerges. Thus gender cultural divisions emerged and the study identified this as a challenge.

Despite the division of labour along gender lines, it seemed to be under control. For instance, during interviews, the local community member said that she was glad that *Xhosa* culture would be preserved and the cultural dynamics of gender stereotypes would be bridged at school. She made the comment because of the mixed male and female group of learners she was demonstrating to (see section 4.2.1).

In the same breath learners felt that such attitudes have to be dealt with to provide the smooth implementation of the NCS. As teachers, we need to be careful and sensitive about what content to choose and how to involve all the learners actively in teaching and learning and knowledge creation process. I have to be sensitive to using the curriculum to perpetuate gender divisions as this would not be contributing to the goal of the country to effect positive social change. The study revealed that innovativeness to involve male and even female learners in activities that are historically gender orientated is very important. The cultural history of *amarewu* encourages a culture of sharing among people living in the same community. *Amarewu* was, and still is, shared by some households. For me, that was the x-factor for sustainability in the environment and how local people use a cultural food practice in sustaining each other's livelihoods.

The cultural significance of indigenous practices has to be taken into consideration and not be ignored when working with IK in the formal schooling curriculum. The reason for not ignoring cultural issues is the fact that these underpin very valuable information that may make one understand why people make certain choices. These are the practices that still need to be taught to the younger generation as they unfortunately missed being socialised in certain intergenerational knowledge and the value of sharing and caring for one's neighbours is a good example.

The study revealed that *amarewu* is a well known cultural food or dish thus supporting its use in the revitalisation of our cultural food heritage in curriculum knowledge. Learners were able to identify with and its use in a cultural and scientific context resulting in the learners valuing of *amarewu* because they saw the food's nutritional value as similar to other modern food.

#### 5.4.2 Language as a cultural issue and its relevance for learning

The use of home language for better learning is one of the topical issues in the national quest for educational transformation in the South African context. Macdonald and Burroughs (1991:30) claimed that children's thinking develops more quickly and easily in their first language. Ambivalences are created by learning using the home language because some say that it would not provide international standardised qualifications. Others see it as maintaining inferiority (Macdonald and Burroughs, 1991:30), while others claim it can be used to gain a better understanding of concepts and issues in the learning encounters.

One of the principles of constructivism states that learning involves language (Moll, 2002), which implies that the quality and accessibility of the language we use in learning activities influences learning. Baumann *et al.* (1997) write that Vygotsky believes that language is a vital instrument for the development of thought. He sees all learning as social and language as the vehicle for learning. During interviews with the community member, she expressed the opinion that it would be crucial for opportunities in the teaching IK to use home language because this would reflect the value of the language. The subject advisor, the teacher and the learners all shared the same view. They further emphasized the authenticity of the information to be preserved by being aware of the value of home language and the meaning attached to certain words.

During the observation activity, learners were instructed in their home language and they used it freely during the demonstration. In addition, learners used the vernacular in their reports. I therefore felt that the issue of language should not be ignored in this kind of work as it was evident from the experience with learners that it provided a comfort zone, as learners began to understand the intergenerational health knowledge on *amarewu* consumption.

Macdonald and Burroughs (1991) state that if children can use their own language, they can express their own ideas and can be creative, and if new language is used the children will be put into a kind of prison. What I have observed was that learners became more active than in my normal day to day classroom teaching, as they were asking the demonstrator questions and a more meaningful and informative learning situation prevailed. Learners were interested, for example, in why the use of ferment and how the ferment is made. The observations I made regarding the positive attitude learners had in that learning experience was due to the fact that their mother tongue was used and they felt comfortable and their thinking skills were provoked more than when I used English as the language of teaching and learning (LoTL) during my own lessons.

Having observed the demonstration too, I noticed a change in learner participation during the first focus group as some were reserved. The reason for them being reserved was based on the use of language, which was English. I then let them speak any language they were comfortable with and allowed code switching (Bernstein cited Wood, 1991:113). Learners were therefore affected by linguistic deprivation (Bernstein cited in Robertson 2002) because they were unable to use the elaborated code effectively.

Masuku (1999) and Asafo-Adjei (2003) in their studies indicate the value of mixed languages when they explain certain terms, which results from the fact that most translations do not have exactly the same meaning as the original words used. So the authenticity of information would be compromised if translations were used.

In contrast I now realise that it would not be necessary with the new NCS as it clearly states that “the Consumer Studies curriculum educates learners to be wise consumers by developing knowledge, skills, values and attitudes to communicate effectively using language skills in various modes (DoE 2003:9).”

In brief, as a teacher I was aware of areas that would be detrimental to the learner’s ability to show his/her potentials and language usage in learning situations is one. Therefore, I saw it as improper to put my learners in a kind of prison as Macdonald and Burroughs state (1991:30-31). Bourdieu, 1993 (cited by Sisitka 2002) states that learners draw on their cultural capital derived from classroom settings and their social habitus to make meaning in interpretive learning.

Learners therefore bring to school language capital from home. This relates to Bernstein's view (as cited Wood 1999:113) on the elaborated code that learners encounter at school as they bring restricted code from home, because they could not use the elaborated code effectively.

Consequently, the essence and meaning must be maintained in order not to lose the valuable information that is being learnt. In terms of principle XI of South Africa's new (post-apartheid) constitution: "*The diversity of language and culture shall be acknowledged and protected, and conditions for their promotion shall be encouraged*" (Robertson, 2002:6). In terms of education per se, every learner has the right to "*instruction in the language of his or her choice where this is reasonably practicable*" (Robertson, 2002:6). What Robertson refers to on the value of home language is that it has to be promoted, (which was clearly evident from the study. All respondents (interviews) supported the use of mother tongue when dealing with intergenerational knowledge.

#### 5.4.3 Intergenerational health and nutrition

Based on a variety of data sources, the importance of health for livelihood sustainability came out very strongly as the respondents attached value to local traditional food. The fact that some people do not consume *amarewu*, as respondents indicated, was due to a changing lifestyle that affects cultural practices and not that *amarewu* is unhealthy (see chapter 4). In the interviews the respondents confirmed the health significance of local food like *amarewu* which is nutritious and gives those who consume it energy (Appendix H). During the demonstration, it was explained by the local community member that *amarewu* provides those who consume it with energy and that is what made it popular in many households.

In the research activity it was also confirmed that people still drink *amarewu* because of its nutritional value and in particular for energy. The data indicated change in the consumption pattern of the product in the community because it is now seen as food for the impoverished and sick *amarewu* tends to create stability in the stomach of the sick and at the same time giving them strength. The data that emerged was supporting intergenerational health knowledge thus linking it to the knowledge of nutrition in the curriculum.

What emerged here relates to content embedded in LO 2 & LO 3 because it relates to why people make certain food choices and use available resources to make these food choices. It was clear that people's decisions to eat certain foods was due to the community sharing and that this would then popularise that kind of food and make it part of everyone's diet. *Amarewu* is an example of an indigenous practice that is unique to Xhosa culture. People linked 'Ubuntu' (humanity) to food and waste was eliminated by re-producing another type of food from left-over porridge. So the other content that came out strongly in the study is the relationship of 'Ubuntu', culture and food. The sharing of *amarewu* to them signified well being ('*intlutha*'), not what today's people perceive as being impoverished if you still drink *amarewu* at home.

Despite the changes mentioned in the consumption patterns of traditional food, *amarewu* is still a known practice in the area. What the respondents mentioned was the importance of the revitalization of cultural practices, especially for the youth, because they do not know much about many cultural practices and their value to people's lives and health.

As much as the respondents supported the consumption of local food, it did not emerge out clearly what other nutrients, except carbohydrates for instant energy, were contained in *amarewu* and why people should eat grain products. But it was clearly explained by the demonstrator that the ferment must not be added to hot porridge as it would be destroyed by the heat. This was fascinating as that kind of knowledge is not documented anywhere with regards to intergenerational knowledge but experience has taught the local people to be careful and courteous when working with certain types of food, thus preserving that food's nutritional value. This confirmed how intergenerational knowledge is shared which is oral, as no research is done and people learn from experiences they had with a particular practice.

The importance of *amarewu* in people's diets was articulated by the learners in their posters but still not all nutrients were indicated till I intervened during the poster presentation session which led to reviewed posters. The new posters showed other nutrients like vitamin B for a healthy nervous system and enzymes for digestion.

The possibility of mobilising IK in the curriculum was evident and it results in the sharing of intergenerational health knowledge thus leading to valuing our cultural food heritage.

#### 5.4.4 Skills development, entrepreneurial or economic benefits

Norberg-Hedge (2002) claims that, the shift to local food would lead to benefits for local economies and social benefits to communities as a whole. It is quite evident that changing lifestyles have a bearing on the economic status of many rural people as most people do not have decent jobs and therefore could not put a plate on the table. For example, I think that most people, who move to urban areas to seek jobs, are disappointed owing to the lack of obtaining envisaged jobs and are left without innovativeness in terms of skills, use of available resources (soil) to sustain their livelihoods.

The data revealed that people ought to know who they are and where they come from and the respondents criticised people who devalue their own culture. The development of skills was seen as one of the key issues that moulded older people and that should be taken into consideration for the youth. For example, during the focus group, the learners raised a point that older people in the community are unaware of the economic benefits that can be accrue to them through the use of local knowledge. However, they referred to the fact that, as learners, they can help the community to realise their potentials by sharing the knowledge they learn at school, in addition to what community members already know, to establish successful small businesses.

Consequently, the latter was supported by the teacher in that there are business opportunities that people can engage themselves in by selling *amarewu* and other traditional foods. The learners added that they can help them with regards to sharing nutritional knowledge found in various foods so that they can sell nutritious food.

This related to the aims of this research which was to integrate IK in propositional knowledge in the curriculum, so it was not aimed solely to promote IK and isolate Western knowledge, but to balance the two forms of knowledge. What emerged in the study supported the use of skills and knowledge from both genres, ie. learners and

local people interchangeably, and to establish micro-businesses for the benefit of local people.

## **5.5 Planning a learning programme**

Learner support material refers to any material that facilitates learning and teaching (LPG (2005:18)). The development of learner support material (LSM) is one of the key elements in the transformation of the new curriculum in the South African context. The notion is therefore relevant to learning. However, contrary views emerged in the study with regards to the view of teachers as developers of educational materials. It was quite obvious that LSM development was not perceived as a terrain solely for teachers. In educational norms and standards teachers are seen to be developers of materials. Czerniewicz and Murray (2000) state the importance for educators to design and develop materials to support learning. Czerniewicz and Murray (2000) state the importance of the educator's ability to design a teaching /learning strategy to facilitate the achievement of learning outcomes. In their work they attach meaning to the teacher's capability to develop materials to support learning.

The implementation of the new curriculum encourages the development of materials to supplement learning. The subject advisor's view, that teachers cannot be developers of materials (see Appendix D<sup>1</sup>), changed when she observed that teachers can write books and other material. The teacher added that teachers can develop their own lesson plans, activity worksheets and assessment tools to support learners to learn (see section 4.4.1). Masuku (1999) conducted the first school-based research supported by Share-Net to explore the development of Indigenous Knowledge materials in the curriculum. Such materials have been in use in implementing IKS at many schools.

### **5.5.1 Learner activities**

One of the basic principles of the Department of Education (DoE) concerns the development of learning materials to promote awareness and respect for the environment and the diverse cultural heritage of society at large (DoE 1999g cited in Taylor and Vinjevold, 1999:164). As a way of supporting this view in this study, I designed learner activities, as Taylor *et al.* (1999) point out to promote awareness about our diverse cultural heritage. Learners in one activity were required to

investigate the food choices people make and what informs these choices. In another activity they were also required to do an audit of cultural food choices in their community. Such activities were contextualised in that particular area, but at a later stage these activities can be explored further by learning more about other cultural heritage in the area. The nature of these activities was also linked to what Cornbleth (1990) characterises as the exploration of socio-cultural context.

For example, the process of developing learner support material should be part of teaching and learning. During the interview, learners had an observation worksheet and for the research activity they had an activity worksheet with the criteria on how to carry out the activity. Guiding learners is important in the learning activities (see Appendix F). The study revealed that LSM can be used interchangeably in the teaching and learning situations. In so doing the knowledge gap will be bridged as learners may not know what you are talking about, by showing them or using real products that may lead to conceptual understanding. Hence, the use of socio-cultural context and the associated resources. What emerged in both activities was that learners filled out the activity worksheets quite well and at the same time, asked the demonstrator questions which made them more data for the worksheet.

Learning outcome 3 in this curriculum statement advocates judicious use of resources by the community, which I related to learner support material (LSM) development because teachers would like to use resources that are available to them to support learning. The latter view was also supported by the teacher and subject advisor that available resources in a particular community should be used: *“...if you are in rural areas it means you are going to use available resources, both human and non-human, from your community.”*

In this study I sourced the availability of resources in my local school community, which meant that I explored resources in terms of using interactive methodologies for the development of learner activities. The availability of a human resource, such as parents, proved to enhance learning about IK thus enabling experiential learning through demonstration, research activity (learners as co-researchers) and poster development. The interactive learning activities were supported by interviews with respondents as a methodology to choose when working with IK.

### 5.5.2 Learning by learners

Baumann *et al.* (1997) cite Vygotsky who emphasizes the importance of the child's need for interaction with those who have more experience. In this study I went a step further creating a space where learners interacted with me and other learners in focussed group discussions and interviews. In this way I managed to reach an understanding of various educational processes that take place in such settings, and to gauge the learning that was actually taking place.

During the interview, it emerged clearly that learners carried out the activity they were given and their contribution was very meaningful. They shared their views on how they thought IK integration would benefit them and what challenges were involved. The learners also wrote their reports well and articulated their findings well: it was obvious that they followed the given criteria. During the poster presentations, they showed improvements as they came before that presentation to show me how they had designed the posters and I gave them feedback. The posters had no text and consisted only drawings. I had to be very careful to not discourage them, but I explained what needed to be done to create posters with a message. During the poster presentation session, learners improved their posters, which were better than the first attempts (see Appendix H).

What transpired for me as the teacher was that interactive methodologies like demonstrations, research activities and interactive reflections involving interviews enhance meaningful learning for learners. It was therefore my duty to mediate the learning for the learners. I had to continue the role as mediator even in the content that the learners produced by provoking their thoughts when I asked about what they wrote on their poster. My interaction with the learners in the focus groups and interview showed how learning has taken place in the IK activity, which was enhanced by our constant interactions and the interactive activities they had to do.

### 5.5.3 Reviewing the teacher's role

The role of the teacher in any learning activity is multifaceted. In the study I was a facilitator of the research process and the learning activities, a mediator of learning, a designer of the learning programme unit and materials, assessor, researcher,

community member and the lifelong learner (DoE 2003:5). As I was working with IK, I saw the foregoing as important to consider, because they created opportunities for me to wear various caps and I changed my role of being the only knowledgeable person in learning and knowledge creation. What emerged in the study was that I had to learn to adjust to all these different roles which kept me on my toes because I had to find out whether learners understood the intention of the lesson they were engaged in.

During the interview, the teacher and subject advisor were also aware of the fact that teachers are researchers and play varied roles. They supported the fact that teachers are to research indigenous practices in the community and also network with community members because it contributes to meaningful IK implementation and learning opportunities for learners (see chapter 4).

What emerged was that innovativeness and careful facilitation of learning experiences to play key roles when working with IK in the school context.

## **5.6 CONCLUDING SUMMARY**

In this chapter I have provided an overview of the findings that serve as issues for teachers to consider in the application of indigenous knowledge in the Consumer Studies curriculum. The findings dealt with issues ranging from the curriculum development to the content, cultural issues to language and LSM development to the role I played as a teacher.

The next chapter summarises the study and provides recommendations for future research in curriculum development practice and for the use of teachers in the field of indigenous knowledge.

## **CHAPTER 6: SUMMARY, REFLECTIONS AND RECOMMENDATIONS**

### **6.1 Introduction**

This chapter provides a summary of the study, a discussion on the findings and reflections on the research process. It opens with a summary of the findings in relation to the research question and culminates in a set of educational recommendations to inform methods and ways of working with indigenous knowledge in the Consumer Studies curriculum. It also reviews the knowledge gained in work on local food choices, nutrition and indigenous knowledge.

### **6.2 Summary of the study**

The study explores the development of a school-based curriculum which includes IK in the Consumer Studies curriculum. The study was planned to be completed in a two month period (21/02/05- 21/04/05), but was extended owing to the work with parents being undertaken at a slower pace and the need to probe the environmental issues that the learners raised.

The main focus of the research was to address how teachers can mobilize indigenous knowledge, with a focus on the environment and sustainability, in the Consumer Studies FET curriculum. In order to research the question a review of the curriculum document was undertaken to identify relevant learning outcomes and assessment standards in relation to IK in the Consumer Studies curriculum.

The case study research design was centred on semi-structured interviews (Stage 1) with the subject advisor and the teacher of the class with which I was working. The process allowed me to get their views on possibilities for working with indigenous knowledge and then to develop a research project involving community members and learners. The project did not lend itself to action research as it was not a cyclic process, so I relied on a conventional stage by stage process of observing and interviewing (semi-structured and focus group) in the unfolding engagement with parents and learners.

The initial data generated (Stage 2) through using the above-mentioned research techniques was used to inform the planning of a local food demonstration by a parent.

The demonstration was explored in interviews and learner worksheets as a possible method of enquiry methodology for working with IK and providing triangulation data for the research (researcher interviews).

After the demonstration and focus group discussions, a learning programme unit (Stage 3) with three learning activities (interview worksheet, poster development and audit) was completed by the learners. Thus learners first undertook a community based research activity on the use and nutritional value of *amarewu*. They presented their findings by writing reports. Then they designed posters showing the intergenerational nutrition knowledge related to *amarewu*. That was followed by an audit on local food preferred in the community.

During the initial demonstration and interviews, what emerged was the valuing of intergenerational knowledge. The use of the mother tongue appears to have been important in the initial demonstration contributing to a realisation of the value of local intergenerational knowledge. The learners thus began to respect local knowledge through their practical and research engagement (enquiry) with indigenous knowledge practices. The data supported the importance of involving parents as custodians of local indigenous knowledge, and teachers, who were responsible for curriculum content. Here the curriculum concepts were enhanced, practically and conceptually, and the learners engaged with relevant local knowledge and developed respect and understanding of cultural issues.

Intergenerational nutritional knowledge served to enable learners to develop a deeper and more relevant understanding of local nutrition and related health issues using curriculum concepts. In this way the stage-by-stage work with the parents and learners (student activity data) and the data generated through documentation and review (researcher observations and interviews) enabled me to begin to answer my research question.

## **6.3 Reflections on the research process to answer the research question**

### **6.3.1 Developing a research methodology for working with IK**

I began by weighing the relevance of indigenous knowledge to the conceptual knowledge in the curriculum on fermented foods in Consumer Studies, which enabled me to see that IK and curriculum concepts were related in many ways. I also saw the importance of working with a parent who had the indigenous knowledge on local health and nutrition practice of *amarewu*. Involving the learners as co-researchers was also identified as an important part of the process leading to a research design where data was generated from a number of parallel and integrated experiences and processes. A key feature of the research was that learners gathered data to contribute to the research.

## **6.4 Reflections on methodology**

I chose to work with a more interactive methodology which engaged me as researcher, with learners and parents as co-researchers in the enquiry into indigenous knowledge and nutrition. The approach had the advantage of harnessing the interactive research processes involved in the community meaning-making of the *Xhosa* (Goduka, 2005). However, it was a challenge to manage all of the data that was generated in the observation and discussion sessions. I thus used interviews and focus groups as a more formal way of generating data so that open-ended enquiry was not lost when we worked as a team (teacher, parent and pupils). The research process developed in two ways:

- Formal data gathering by myself and
- A scaffolded enquiry by the pupils.

The blend of formal data gathering techniques undertaken alongside an enquiry process that was culturally and pedagogically aligned to engage learners in indigenous practices and subject content proved to be surprisingly easy to manage. Its' advantage was the way that I was able to critically experience and document the process to open up insights into the knowledge creation processes. As I look back on it now, I can more clearly see how I was both a researcher and a teacher researching my developing practice so that through careful data gathering, I would be able to answer my research question with clarity and reliability.

I am confident that the research process has revealed some important perspectives and insights and reflects a methodology for engaging indigenous knowledge and the realities of local context. During the research, the complexities were a little overwhelming at times, but the more formal use of interview and focus group activities allowed me to generate reliable data. I centred my analysis on the data generated and the unfolding pedagogical enquiry in which the learners were engaged.

The latter was particularly significant as it enabled me to reflect on methods for working with indigenous knowledge capital as local and prior knowledge for learning in relation to the content of the school curriculum. Here I was able to see how the knowledge of the indigenous practice of making '*amarewu*' became the prior knowledge/experience that learners related to and used in understanding the scientific propositions and processes in the Consumer Studies curriculum.

The most surprising thing to me was how they learned the content with greater insight than when I had taught this section before. Simultaneously there also developed a respect for cultural practices that opened up a capacity to look into local nutrition/environmental issues and problems.

### **6.5 Synthesis of key issues to consider in work with IK**

The outcomes and findings of the case study suggest that the following are considered when working with IK:

- Interactive methodologies that allow experiential learning in local context
- The important role of home language (mother-tongue)
- The important role of parents as local experts
- An enquiry pedagogy where learners are co-researchers
- Relating all learning insights to local nutritional problems.

It is on the basis of these reflections and insights that I was able to consider further research that needs to be done on Indigenous Knowledge and the curriculum.

## 6.6 Recommendations for further research

If I was to do this curriculum research again, I would not see indigenous knowledge as something separate. I would treat it as prior knowledge that is local, intergenerational and cultural. I would also not see this as different from or opposed to the scientific knowledge in the Consumer Studies curriculum because learners brought the two together fairly easily as they came to a new understanding of fermentation and nutrition. Treating indigenous knowledge as a local **cultural capital of prior knowledge** and the curriculum content as the **capital of concepts to be taught**, also enabled me to see how environmental learning is **working with both in relation to local problems**.

More research needs to be done to clarify these processes, but the case study has opened my eyes to these important dimensions in working with indigenous knowledge in the Consumer Studies curriculum. The notion of linking indigenous knowledge and Western knowledge was quite evident in this study as they emerged as workable and related. When the learners did the community activity and observation of a local food practice in stage 2 and 3 a space complementing the two was created. The manner in which learners interpreted the activity responses and viewed the observation created a platform to understand curriculum concepts in relation to indigenous knowledge practices which are more practical than explanatory Western knowledge as tabled in the curriculum document.

Although the scope of this research is limited, it has opened up some practical possibilities and some important orientating ideas for work with indigenous knowledge and nutrition in the South African context. Take, for example, the significant role that can be played by parents in further creating these learning platforms thus contributing in complementing scientific concepts and indigenous knowledge practices. Hopefully this would address the issue raised in section 2.2.3 and 2.4.2 that people's food choices and lifestyle patterns have changed significantly over time. Now learners will get the opportunity to be exposed to the traditional and modern food practices allowing continuity in intergenerational nutritional knowledge sharing with the younger generation.

## 6.7 CONCLUSIONS

The methodological insights emerging from the research experience and my analysis of data are as follows:

- Parental involvement and work with mother-tongue are essential for a mobilising engagement with indigenous knowledge
- Comparative work with curriculum concepts contributes to relevance where learners are able to relate the subject content knowledge to the indigenous practices.
- Cultural sensitivities and differences between boys and girls need careful work but overall the relating of indigenous and curriculum knowledge to local context can provide practical insights and greater respect for the nutritional value of cultural food heritage.
- The relating of emerging knowledge to local environment concerns led to a blending of the knowledge both indigenous and scientific, round everyday nutritional problems and learners came to see the importance of good nutrition that critically combines the traditional and modern.

Methodologies that involve parents, engage learners of activities enquiry and which relate emerging knowledge to local nutrition concerns have a lot to offer in my continuing work with IK in the Consumer Studies curriculum. I am conscious that the knowledge gained and the materials developed through my study are of value, although they must not be used in ways that might dominate and exclude teachers and learners from working with indigenous nutrition practices and local health problems through more formal enquiry of the curriculum. Thus I will not attempt to derive a specific curriculum module from this study, but will write up a case story that makes methodological recommendations and provides starting points for other educators to use in their work with indigenous knowledge.

Contrary to my ideas at the start of this research, it was evident that IK and propositional knowledge of the curriculum are complementary since both relate to concerns about health and nutrition. What the study raises is the possibility to revitalise indigenous ways of knowing and cultural practices in curriculum work by relating them to the health challenges of the modern diet.

My hope is that we will be more successful in allowing our learners to make the connection between cultural knowledge and conceptual knowledge in the curriculum to enhance lifestyle choices.

## REFERENCE LIST

- Asafo-Adjei, R. 2003.** *From Imifuno to Umfino. A Case Study Foregrounding indigenous Agriculture Knowledge in school-based curriculum development.* Unpublished Masters Thesis, Rhodes University, Grahamstown.
- Bassey, M. 1999.** *Case Study research in educational settings.* Buckingham: Open University Press.
- Battiste, M. 2002.** *Indigenous Knowledge and pedagogy in First nations Education.* A Literature Review with recommendations. Ottawa, ON.
- Baumann, S; Bloomfield, A & Roughton, L. 1997.** *Becoming a Secondary School Teacher* (pp.63-68). London: Hodder & Stoughton.
- Czerniwicz, L., Murray, S & Probyn, M. 2000.** *The Role of Learning Support Materials in C2005.* A research paper by for the National Centre for Curriculum Research and Development (NCCRD).
- Cohen, L. & Manion, L. 2002.** *Research Methods in Education.* 5<sup>th</sup> Edition. Routledge Falmer. London and New York
- Cornbleth, C. 1990.** *Curriculum in Context.* London. Falmer Press
- Dillon, J; Sanders, M; Teamey, K & Benefield, P. 2003.** *Improving the Understanding of Food, Farming and Land Management amongst School-going Children.* A literature review. National Foundation for Education research. Kings College, London.
- Department of Education, 2003.** *Consumer Studies National Curriculum Statement.* Government Publication. Pretoria
- Department of Education, 2005.** *Consumer Studies Learning Programme Guidelines.* Government Publication. Pretoria
- Department of Education, 2005.** *Frequently Asked Questions in FET.* Eastern Cape DoE Publication. Bisho
- Department of Education, 2000.** *Interim Committee Review Report on C2005.* Government Publication. Pretoria.
- Department of Education, 2000.** *Norms and Standards of Education for educators.* Government Publication. Pretoria.
- Department of Education, 2002.** *Phasing in Outcomes-Based Education in Further Education and Training.* Government Publication. Pretoria.
- Department of Education, 1995.** *White Paper.* Government Publication. Pretoria.
- Gipps, C. 1994.** *Beyond Testing Towards a Theory of Educational Assessment.* The falmer press, London.

- Glaser, B. & Strauss, A. 1967.** *The Discovery of Grounded Theory: Strategies for qualitative research.* Aldine Publishing Company.
- Goduka, N. 2005.** *Eziko: Sipheka sisophula. Nguni foundations for educating/researching for sustainable development.* The South African Journal of Higher Education. Vol 19, No.3. UNISA Press.
- Greiner, L. 1998.** *Working with Indigenous Knowledge. A guide for Researchers.* International Development research Centre. Canada.
- Grundy, S. 1987.** *Curriculum: Product or Praxis.* London: Falmer Press.
- Kachilonda, D. 2005.** *An Investigation of Local Community Contributions to the Malawi College of Fisheries Curriculum: A case study focussing on the Chambo fishery.* Unpublished M.Ed study, Department of Education, Rhodes University, Grahamstown.
- Kemmis, S. & Wilkson, M. 1998.** *Participatory action research and the study of practice.* In B. Atweh, S. Kemmis & P. Weeks (Eds), *Action Research in Practice: Partnerships for Social Justice in Education.* London: Routledge.
- Kota, L.S. 2004.** *A Contextual Profile: A contextually shaped curriculum development.* Unpublished M Ed Assignment. Rhodes University Environmental Education and Sustainability Unit.
- Lather, P. 1986.** *Issues of validity in openly ideological research: Between a rock and a soft place interchange* 17 (4). Pg 63-84
- Le Grange, L. & Reddy, C. 1998.** *Continuous Assessment: An introduction and guidelines to implementation.* Kenwyn: Juta.
- Lemmer E.M, 1993.** *Gender Issues in Education.* In E.I. Dekker & E.M. Lemmer, (Eds.), *Critical issues in modern education.* Durban: Butterworths.
- Lotz-Sisitka, H. 2002.** *Sketch map of Learning Theory to Narrate Methods and Materials in contexts of Environmental education, Part 2.* First draft orienting notes-for further development in participatory research project. Course notes, Education Department, Rhodes University, Grahamstown.
- Macdonald, C. & Burrhoughs, E. 1991.** *Eager to talk and learn and think: Bilingual primary education in South Africa.* Cape Town: Maskew Miller Longman.
- Maree, J & Fraser, W. 2004.** *Outcomes Based Assessment.* Heinemann Publishers. PTY. LTD. Sandown
- Masuku, L. 1999.** *The role of indigenous knowledge in/for environmental education: The case of Nguni story in the schools water action project.* Unpublished Master of Education Thesis, Rhodes University, Grahamstown.
- Masuku, L. & Neluvhalani, E. 2004** *Indigenous Knowledge in Environmental Education Processes: Perspectives on a growing research arena.* Environmental Education Research Journal. Vol.10, No.3

- Mc Niff, J. 1996.** *You and Your Action Research Project*. Rout ledge. London.
- Moll, I. 2002.** *Clarifying constructivism in a context of curriculum change*. Journal of Education No.27, South Africa.
- NEEP-GET 2005.** *Supporting environment in the curriculum*. First Edition. Share-Net, Howick.
- Norberg-Hedge, H. 2002.** *Bringing the food economy home Local alternatives to global agribusiness*. London: ZED Books; Halifax, NS, Fernwood Pub, CT: Kumarian Press.
- O'Donoghue, R. & Neluvhalani, E. 2002.** *Environmental Education, Ethic and Action in Southern Africa*. Pretoria: HSP Publishers
- Odora Hoppers, C.A. 2002.** Indigenous knowledge and integration of knowledge systems: towards a conceptual and methodological framework, in C.A. Odora Hoppers (Ed.) *Indigenous knowledge and the integration of knowledge systems*. Claremont, South Africa, New Africa Books.
- Patton, M. 1990.** *Qualitative Evaluation & Research Methods*. Second Edition. SAGE Publication. USA.
- Robertson, S. 2002.** *Language and LoLT<sup>1</sup> Issue*. Course Notes, Education Department, Rhodes University, Grahamstown.
- Rosegrant, W. 1995.** *Global food projections to 2020: Implications for investment*. Washington D.C.: International Food policy Research Institute.
- Seepe, S. 2000.** *African Voices in Education Africanization of Knowledge: Exploring Mathematical & Scientific Knowledge Embedded in African cultural Practices*. Juta & Co. Ltd.
- Shava, S. 2000.** *The use of indigenous plants as food by a rural community in Eastern Cape*. An educational exploration. Unpublished Masters Thesis. Rhodes University, Grahamstown.
- Sieborger, R. & Macintosh, H. 1998.** *Transforming Assessment*. A Guide for South African teachers. Juta & Company Limited. Cape Town.
- Soga J.H. 1931.** *The Ama-Xhosa: Life and Customs*. Lovedale Press. South Africa
- Stake, R. 1995.** *The Art of Case Study Research*. Sage Publications.
- Stenhouse, L. 1980.** *Curriculum Research and development in Action*. Edited by Lawrence Stenhouse. London: Heinemann Educatuional.
- Taylor N. & Vinjevold, P. 1999.** *Getting Learning Right: Report of the President's Education Initiative Research Project*. The joint Education trusts. RSA.
- Terre-Blanche, M and Durrheim, K. 1999.** *Research in Practice*. Applied Methods for the Social Sciences. UCT Press Cape Town

**Wood, D. 1999.** *How Children Think and Learn.* 2<sup>nd</sup> Edition. Oxford: Blackwell Publishers Ltd.

**Yin, R. 2003.** *Case Study Research. Design & Methods* 3<sup>rd</sup> Edition. Applied Social Research Methods Series. Volume5. SAGE Publications, Thousand Oaks. London & New Delhi.

APPENDIX A

Nosizwe High School  
P.O. Box 233  
Zwelitsha  
5608  
17 February 2005

Mzali obekekileyo

**Uncedo ngolwazi lwakho ngokutya okuvundisiweyo**

Oku kukucela ixesha lakho ukuba undincede kuphando endunalo ngokutya okuvundisiweyo ingakumbi I Rhewu. Injongo zokwenza oluphando ukususela kunyaka ozayo (2006) kuzakubakho inguqu kwizifundo zabantwana apho kufuneka befundisiwe ngolwazi lwezinto ezenzeka kwindawo abahlala kuzo, sidibanisa nolwazi olubhaliweyo ezincwadini. Kwaye injongo zoku kukuba nathi silushicilele ulwazi lwethu lwemveli.

Kungoko ndiye ndaba nomdla ukuba singayenza njani lo nto singo titshala. Okwangoku umdla wam kukuba ubonise abantwana ukwenziwa kwe Rhewu indidi ozaziyo. Ukulungiselela oku singadibana sibonisane ngezinto ezizakufuneka.

Emva komboniso lowo ndiza kucela elinye ixesha lokukhe ndikubuze imvelapi ye Rhewu elo njalo njalo. Umhla :16 March 2005  
Ixesha: 10:30

Ndiyathemba ukuba isicelo sam siyakwamkeleka.

Ozithobileyo

  
L. Kota (Miss)

**AMA-REWU DEMONSTRATION**

1. What equipment were used in the preparation of ama-Rewu

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2. List ingredients used

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3. How long did it take to make ama-Rewu?

4. What processes were involved to make ama-Rewu? Tabulate as follows:

Measuring:

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Method:

---

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6. How long did the fermentation take place? Reason

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7. How was the readiness of the product checked?

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8. What explanation did you get on the functions of each ingredients used?

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9. For how long can one keep Ama-Rewu?

10. Uses of ama-Rewu:

Who consume ama- Rewu? Why?

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APPENDIX C

Nosizwe High School  
P.O. Box 233  
Zwelitsha  
17 February 2005

The Principal  
Nosizwe High School  
Pakamisa T/ship

Dear Principal

**Request for permission to conduct a Case Study Research**

This serves to request access to conduct a case study research here at school. I am in my second year of Masters Programme at Rhodes University in the department of Environmental Education and Sustainability, and as part of the requirements for the award of the Master of Education degree I have to conduct research.

This letter serves to kindly request you to allow me to work with my colleague Mrs Mqalo and a sample of learners from her grade 10 class. The research is on curriculum development in preparation for implementation of National Curriculum Statements in Grade 10 as from next year (2006). More than this being my own professional development but I hope that other teachers will gain from this research.

I would also appreciate it if you could inform the school governing body and the rest of the staff about my intentions.

Yours in service

  
\_\_\_\_\_  
L.S. Kota (Miss)

APPENDIX D <sup>1</sup>  
INTERVIEW – SUBJECT ADVISOR

-10/03/05

Thank you Miss for the time you have given me to conduct this interview with you. The interview is aiming at finding out on possibility of integrating local knowledge or indigenous knowledge within the Consumer Studies FET curriculum.

1. What do you understand by IK?

Respondent- (Silence for 5 seconds). Indigenous knowledge, is knowledge even the laymen is having, it is not studied at school even a person who has not gone to school has that knowledge and that knowledge can be powerful.

2. Elaborate on power of IK?

Eh! By powerful I mean that at school those who have studied for instance- let me take Consumer Studies for instance. Teachers for Consumer Studies as well as learners they do know their subject very well. Teachers may not be able to teach children ... about traditional foods like *Umqombothi* as they may not know how to prepare *umqombothi* and learners too, we can then invite someone from outside (community) to show us how to prepare for instance *imifino*, *uqumatana* all those food are important in our culture but the kids don't know about preparation of *uqumatana*, *uMxhaxha*- and these food involve methods of cooking and food systems.

3. How would you consider the readiness of teachers in implementing the NCS with regards to LO's, and principles)?

Talking about readiness, we as the DoE we have started putting teachers on board on what is National Curriculum statement and what is expected of them, we are in a process of introducing Generics and we are now preparing to take this further with regards to training to ensure that everyone is on board. It is going to take a process let me put it this way ... (silence) it is a process re-skilling teachers.

4. Which learning outcomes do you think are relevant for IK mobilisation in Consumer Studies curriculum?

I think LO 2 and 4, because these both allow learners to interact with their environment. In the process they are learning a lot about nutrition issues of the people in that area and even learn how to produce certain products (i.e. LO4).

Follow up- By certain products what do you mean?

As I have mentioned earlier that learners do not know how to prepare traditional food like *imifino*, *umqombothi*, *ama-rewu*, etc. so the two learning outcomes will provide learners opportunities to gain these products and others preparation skills and more knowledge on their use.

5. What cultural issues do you think would be brought up by what you raised i.e gaining skills?

As the subject advisor I interact with teachers, I have heard complaints from some teachers that boys do not want to wear aprons during practical lesson and that is a standard procedure in Home Economics. Consumer Studies and Home economics are sister subjects, so it is expected even in Consumer Studies that learners do practical lessons. What I foresee as would be brought up as challenges for teachers is that culturally boys do not cook and its even worse that if IK will be part of the curriculum the learners would have to cook traditional food. Boys according to Xhosa culture do not eat *imifino* but they will drink ama-rewu, but the challenge would that teachers would come across resistance in as far as requiring both girls and boys to prepare certain kinds of food like *imifino*. But I think teachers must be sensitive to what they let their learners to prepare.

6. Do you think that the contribution of local people in this NCS implementation process could be a meaningful exercise?

It doesn't concern solely Consumer Studies, all subjects because the teachers, (silence) it doesn't mean that you don't know the subject but there will be a section where you need somebody from outside to come- like for instance in commercial subjects you can invite someone to talk about budgeting and explain further what is involved in budgeting.

7. What do you think about teachers being developers of LSM?

At this stage teachers can develop materials but I am not sure of them of being Eh!Eh! Good material developers except people who have been trained in doing that and we have the people form the DoE. Because we (pause) not all of us as we sitting here in the DoE can be able to develop material. There are people who were taken to Pretoria to develop material.

- 7.2 (Then I chipped in) So far you mean that teachers still need training. With regards to implementation of this NCS teachers are seen as materials developers especially with IK materials your view?

8. What is the role played by DoE in availing the LSM especially for NCS implementation next year i.e. 2006? Is there any material that has been developed that integrates IK?

There is material available for instance I've seen even bookshops coming around and introducing material that means for Grade 10 materials are ready. As far as resources are concerned it is going to take sometime, the Department is trying to organise resources/ materials for the teachers. Now it doesn't mean that the teachers can fold arms and wait for everything coming from the department, as we have been busy doing previously. With regards to IK material I did not have time to go through textbooks so as to see if IK has been integrated, teachers might know better because they have been exposed to the new books than us here in the office.

9. What do you think of the role that can be played by integration of IK in Consumer Studies in changing the lifestyles or food choices? (I think I over emphasized this question)

(Yah!) There is a lot because as I have mentioned earlier on (eh!) (silence) in this new curriculum/ previously we, we didn't consider IK even the parents were not involved very much in school and even in our curriculum now because of this IK it means that now nobody is (eh!) is an empty vessel even the parent whether learned or not that particular parent is having a knowledge that can be of very/ or can play a very important role in the curriculum, for instance people are suffering from various disease it always mentioned that the natural plants are good so those plants we don't know of as people who are learned and know the subject so the people from outside can come with various plants that can be of help in our health and in our meals, for instance if you want to make *imifino* you will always think that *imifino* is made from spinach and cabbage forgetting that there are natural plants like *ihlaba*, *umsobosobo*, *onojenti* all those that can make something that can be very (eh!) healthy for us all and ... if we are talking now these people who have migrated from other places its very important if we are going to prepare *styspap* (Afrikaans word) for the Sotho people for instance. We can invite that person to come and show us how to make *styspap*. Then we are going to observe because we all know that it's boiled water and mielie-meal. But they can come with this *styspap* not to be lumpy for instance I have observed one of them trying to make a paste for this *styspap*, it is very good because you can now take it for a journey, because we can invite them to school.

(Then I chipped in)- The IK will bring diverse ways of doing things

Yes. Everyone won't feel left out in education and will see the opportunity of preserving their original lifestyles.

10. What expectations do the department of Education have on educators to integrate IK into the curriculum?

It means that now educators must not distance themselves from the community. You as the educator you must that you are the member of the community and you learn from the community and community members must learn something from you as well, so that each one builds each other.

11. What is your view about contextualising curriculum- are there opportunities for contextualizing?

That is, (pause) this new curriculum is OBE based you must not forget that. Where everyone is learning from each other it means that now it is no more teacher centred but learner centred, we must not forget that, it means that now contextualization will always be there (eh!) If we are trying now to make use of this OBE approach all the time we contextualise curriculum. We use everything that is around us, (ewe! Umh!)

12. Do you foresee any problems that may hamper contextualising of curriculum?

No. Because it means that now you are going to use (eh! silence) the available resources where you are, for instance if you are in rural areas it means you are going

★ to use available resources (both human and non-human) from your community. If you are in an urban community it means that is very important and even your activities. (Yah!) You can play around with your available resources in your community for better and improved learning and teaching opportunities which are relevant to learners.

13. What are general challenges of IK within curriculum considering diversity of SA?

★ No. I cannot dwell much more on that, but what I want to rubber stamp is that (eh!) IK in fact let me start with the parents. Parents know that they do not have the knowledge of the teachers; previously they were looking at the teachers as the person with knowledge now as a result they are distancing themselves, even if they see that they are not comfortable among the learned people and now it means that those parents need to be accommodated and we must involve them all the time ie parental involvement- inviting them to school; talking to them visiting their homes and the rest it is very important, because now they need to be accommodated and comfortable within the learned people knowing that they can do something for the school.

Then I reflected- what you are trying to say is that the challenge we are facing is that parents may continue distancing themselves

Response: (Umh!Umh). Not exactly some may do so and some may not distance themselves as they will see it as the opportunity to preserve their cultures.

14. Is environmental learning and IK is dealt with in the curriculum?

Yes... I, I have mentioned eh! Earlier on that; this IK eh... is more of equipping eh! Everybody. I am not going to say learners, everybody in the society with cultural, traditional, moral and value nhe! So it means that now this... (The respondent at this stage asked me to rephrase the question)

Yes, because as I have mentioned eh! and use of environment is of utmost importance because I have already indicated that even in the preparation or planning of activities as the educator you consider resources in your community, it means that now even that now you know your environment (repeat) and the people around you. If you want to for instance if we talk of resources there are human resources, material resources and the rest so all those that can be gathered in our environment.

15. Closing remarks- Is there anything you would like to say that I haven't asked?

Yah!... There is nothing, except to recommend even educators now ah!ah! are going to see the need of writing books, because now the books we are having are of old syllabus, now for the Consumer Studies education we can add more information like when I mentioned the traditional dishes by traditional we now mean the traditional ceremonies, I'm coming now to needlework how to behave, like *Umgidi*- how to dress for it so as to be comfortable in that particular occasion, it means that as educators we need to continue writing more books.

My reflection-

I like that one when we are talking of IK our parents can show us different methods of cooking where you do not have oven in rural area, where they used to make their own oven by using cast iron pots and fire wood. There have been practicing fermentation, can you see.

Thank you for your time Miss.

**APPENDIX D<sup>2</sup>**  
**Interview with the Educator**

18/03/05

Thank you Ma'am for the time you have given me for this interview. The interview is about finding possibilities of integrating indigenous knowledge or local knowledge in the Consumer studies curriculum.

1. What do you understand by IK or local knowledge?

Is very broad

(Then I chipped in its broad how?)

★ Under education local knowledge can help learners to know what they are coming from. And what values of being a human being, because they respect anybody the main problem is that they do not care who you are because they don't know who they are?

2. Is there a possibility of linking IK with the curriculum?

★ I think that would be much better if I can see things clearly the local knowledge will help them a lot. They will tend to feel that they are free and talk freely, to do and the school would therefore not to be stereotyped that much because that local knowledge will help them to know that we are not using it right. This is the right way. By being right I mean as the educator you educate them about local knowledge, the right way of handling local knowledge unlike the way they are handling it because of peer pressure.

(Then I chipped in- How are they handling it now?)

The problem with today's youth is that they become matured very early they think that they are adults instead of being adolescents, because there is nobody guiding them clearly. Another problem their parents may be are illiterate so they are not exposed to these stages of adolescence if they are going to be taught how to handle that based on local knowledge may be that could help.

3. What cultural issues do you think that can be brought up by having IK in the curriculum?

I think that teachers would experience resistance because culturally boys do not cook, this is the I have currently in Home Economics and I see it as being worse in if you would do a practical lesson with the learners to grind maize or go out and pick up wild *imifino*, its even worse that boys culturally do not eat *imifino*. Culturally boys depend on women to prepare food for them, but due changes that took place in South Africa boys were let to learn Home Economics too but even so there were challenges as mentioned.

4. Which learning outcomes do you think are relevant for IK mobilisation?

LO 2 and 4, these learning outcomes would provide learners to learn about people's food choices form various backgrounds including theirs (LO 2). In LO 4 they will get opportunity to do practical, as you know that Consumer Studies is

originally Home Economics, in which there is a practical component so learner will get further hands on practice I learning about traditional practices in class, or the teacher can arrange hands on practice in the community, or even demonstrate for her learners if she knows the practice herself, or invite someone from the community. Teachers must feel free to use available resources both human and non-human from the learner's community to broaden the curriculum and to provide better learning.

5. Having mentioned invitation of the community person how do you see the involvement of parents in mobilising IK?

There advantages and disadvantages.

Advantages – To those who grew up in a community that are literate who don't know how to prepare *Ama-rewu*, *imifino*, etc. that might help them to learn.

Disadvantage- will be to those who grew up in illiterate communities/environment because kids are having a problem of not wanting to live according to their own status, they may feel embarrassed, those who grew up in illiterate environments so I think that will be the disadvantage to them.

(My reflection on disadvantages of older practices to kids coming from illiterate background) How?

Its just that as people we think differently, the way of thinking is different may be I can think that way especially kids if it was an adult it would be different as they would see it in a positive way but because they are teenagers it will be the other way round. The learners from such backgrounds might be ashamed as they might be seen as poor by those from well to do families.

6. What is your opinion pertaining to changing lifestyles of people currently? Do you think we have been modernised and what could have caused that?

Yes people's lifestyles have changed and have caused a lot of problem especially in the diet, now that we have changed our culture we are suffering a lot of diseases for instance in the olden days it was rare fro blacks to have heart attacks, (pause) strokes, whatever disease cancer, because we were dependant on Agriculture those days, but now we use a lot of preserved foods more than fresh foods.

7. Are you then making claims that traditional food is healthier than food in modern diets?

This is a very difficult question, but what I can say is that from my own observation old people were healthier and were not exposed to too much fatty foods than us today. My grandmother used to tell me how healthier and stronger they were because they ate carbohydrates, fresh vegetables like *imifino*, milk and *amasi* and they occasionally ate meat but will eat beans to supplement proteins. So with the modern diet we are exposed in more sugary food and fatty food that's why many of us now suffer from various diseases like heart diseases, etc.

5. What contribution do you think bringing in IK in Consumer Studies curriculum would have in people for making their food choices? (Silence and I had to explain further what the question meant) What this means is that *Ama-rewu* will be learnt at

school, will that help in improving people's lifestyle and those foods be part of their diets?

I think it can make a difference that they know their culture, their way of preparing food, because if you are teaching a child how to bake a cake, they become proud of being able to bake it, but that is not our culture, in our culture we bake rooster (Afrikaans word) cookies, bread and they can not show you how to do those, they know how to bake cakes and make ice creams instead of making *Ama-rewu* and they think that *Imifino* its spinach and cabbage they do not know *imbilikicane* how it is cooked and with what is it mixed to make a nutritious traditional relish (Imifino) unfortunately there is a season for those, *Ama-rewu* for example are a nutritious energy giving drink produced after fermenting leftover porridge or start if form scratch by cooking porridge and mix that with a little bit of wheat flour and it cools your stomach after drinking it and that due to enzymes present in it.

6. Are there implications that can be brought up by IK?

I think there can be a change if parents are involved.

(Then I had to make a follow up question) If parents eh! there can be a change, it could be a positive implication though, so people will see it as good and not bad and not question anything don't you think that people will question the fact that if we go and pick up *imbilikacane* there it will make us sick, because people now you said we don't have the same pots and people now think differently and some people will think that you are taking us backwards and some people now think believe that things must be tested in the laboratory?

I think that the best is to organise cultural day at school and everyone brings a traditional dish, everyone knows if anything get to the boil the bacteria are destroyed, because we won't get the laboratory to test those things, so this is the knowledge that local people have and that will be shared with the kids. Women are specialists for cooking in traditional households and that knowledge has been there for far too long and it never changes, my mother learnt from my grandmother, and my grandmother learnt from her own mother, and I learnt from my own mother and I am now beginning to teach my 12 year old some traditional cookery. With that chain in how local knowledge about traditional practices including cooking is passed on I can say it can be trusted.

7. Now with the preparation of local foods, lets say you invite someone to demonstrate how to make *Ama-rewu* as the focus of this study, do you see the possibilities of us as teachers to develop materials e.g. poster of *Ama-rewu*, *Imiphotulo*, etc.?

Yes it can be possible especially if you come together and decide what must be learnt; especially in Home Economics centre it would be possible like on that flannel board you put I Poster *yamaRewu*, *idombolo*, etc. There are a lot of other LSM that can be developed like in Interior traditional homesteads models could be designed and exhibited in class as learner's resources, in clothing the same can be done like *Imibhaco* (traditional clothes) could be displayed and learners could learn about what

made people to make clothing choices using the elements and principles of design knowledge.

As teacher we can even develop our own lesson plans, learner activities or worksheets and assessment tools e.g. rubrics, tests, etc. in order to support our learners to learn especially as we are to begin teaching NCS

8. What do you think are other challenges that can be brought by local knowledge pertaining to language, earlier you said that learners could feel free to express themselves easily? Positive and negative impact

Eh! (silence) I don't think it can have bad implications especially to the blacks, it can be bad but to other racial groups I'm sure they can be interested to know, for instance we talking about cakes it is their culture so they will know that it is our culture and there is no other word, its *Ama-rewu*. For Xhosa speaking learners I see it as an opportunity to teach better with understanding if their home language is used in class or when learning about traditional aspects. So I see it as would be appropriate for both teachers and learners to be flexible in using mixed languages.

9. So if we develop material whether in the form of textbooks or posters, they must be written in the local language.

Yes, for instance *Imifino* will be interpreted to them, as a nutritious dish or relish, for instance *inkobe* should be written in that language and small inscriptions in English be also written to allow further explanation and understanding.

- 10 Can we then trust the validity of local knowledge since it shared orally not written in books?

Yes we can trust it, we were brought up with that knowledge, unfortunately for us the apartheid left us without any recognition, and we were not recognised to an extent that we don't have the records, otherwise we were brought up with that knowledge that is the problem and we are adults now and there are much more older adults than us with that knowledge. So we can use them as our sources by observing these traditional practices.

11. What challenges are facing teachers now, in relation to the new curriculum for next year and integration of IK?

Teachers have to consult and contact the elderly people they have to go around and seek information because some of the teachers themselves they grew up in urban areas they won't know some of the traditional practices, like yourself.

(My reflection – I do not know how to do *Ama-rewu* honestly)

They don't know how to put up / start fire it takes time to do that, you don't know how to bake outside, you don't know ho to tangle the three- legged pot. For instance the three-legged pot if you cook cabbage in it you can't take more than 3 minutes, you must put it aside when it is hot and cook your cabbage.

(My reflection) – So these are the skills and knowledge that we can seek for as educators.

For instance do you know in the olden days people never used the cough mixtures, they went out and look for plants like *umhlonyana* outside and the fever was cured?

(My reflection & follow up? How did they know about these things, interesting again in the preparation of *Ama-rewu* ferment was formed and they re-used the ferment as yeast for another *Ama-rewu*)?

I think they had a traditional way to economise and sustain resources available to them.

12. Any opportunities that local knowledge would bring to local people to be entrepreneurs?

Yes there is right now in town there is traditional shop selling traditional food, so if these are learnt at school more people would see opportunities to sell their local foods especially the students let say after completing schooling they make decide to open up small businesses too. So this could also lead to sustainability of tradition even many years to come.

13. Is there anything I haven't asked that you would like to say?

I think the attire, the way of dressing Hey! Its frustrating these days, these short pants (*ezi zigcebhezana*)

(My reflection – do you think people have been modernised even in the way they dress)

Especially with these short pants that is a disgrace but I don't know how other people see this, it's the way I'm thinking.

(Follow up?) So may be bringing in the local ways of dressing especially traditional ones could may be bring along the decency are you particularly referring to young girls?

Especially to the girls I think educators must take it up upon their shoulders to teach them how to dress up even their uniforms are too short.

Thank you for the time and information you have given me.

## APPENDIX D <sup>4</sup>

21 April 2005

### Focus group interview with the learners

(4 learners)

Thank you guy for according me this opportunity to chat to you, this interview is trying to unpack the possibilities of integrating indigenous knowledge within the curriculum.

1. Have you had the opportunity of observing indigenous practices at home and is there a possibility of bringing those practices to what is learnt at school and what kind of practices?

R1 Yes IK can be brought to school, because everything that we do at home it must be practiced at school too, everywhere I mean, everything that we do we must bring to school and if we are wrong we will see that it is wrong and go back home and see how it's done. We learn how to milk cows, how to plant gardens, how to look after cattle in the veld if there are cattle I your household even if there are no cattle you would help your friend.

R2 I think bringing knowledge form home to school is better because it can help some of the people at home who have no education and be aware of things they do that are dangerous to their lives so if we practice them here at school we can go back home and teach them, and we can also learn from them. We learn how to cook *porridge*, *ukugcada umbona*, *imifino*, *ama-rewu*, *umphokoqo*, etc.

(Then I chipped in- do you imply that the things that are done at home are dangerous?)

R2 – No I'm actually saying that some people are not aware that the indigenous practices can make them rich, like most people know how to make *Ama-Rewu*, but do not know that they can make a profit out of them.

(My reflection- this implies sharing knowledge from school with local people)

R3- It's like (Yah! They have got the skill we like Yah! And we have knowledge and they have general knowledge of preparation of *Ama-rewu* and we know at least their nutritive value information so we can work together with local community members to make sense of all these practices both local and scientific practices, so I think as learners we can contribute to development of new ways of knowledge as we would be learning a lot of things from our backgrounds and elsewhere.

2. What other indigenous practices are done at home and do you enjoy them?

R3- Customary occasions for example how to gather wood for a particular traditional ritual, I think we do its not done every time then when we get that opportunity we enjoy it because some practices are not done frequently.

(Then I chipped in – so these are shared during certain occasions)

Yes! Yes! All respondents agreed.

R4 other children do not have parents to show them so it will be like sharing everything you know with others.

### 3. What challenges can IK bring?

R1 – I can say that there are challenges because if we are doing something like old traditional food and bring it here at school. Some other students would take us as may be stubborn or what, because they do not know what is it we want because we lost our roots somewhere somehow and we must bring them back by using these olden or home food to school and to other people who don't know our culture exactly to bring them into their face to see that there is nothing wrong in our food and they must use it and they must learn how to do it. With us boys we wouldn't like to be seen cooking or eating *imifino*, with *ama-Rewu* no problem we can drink but not its preparation part, that's girls work.

(Then I chipped in-reflecting on what the respondent has said)

R4- Yah! Because other people don't make Ama-rewu.

( I chipped in - what makes that?)

R2-because we are modernised we live our lives like other people from other countries or like whites. We treat ourselves as whites, when we drink milk it's as if it's different from eating *umngqusho* and all the other traditional food. Honestly there is nothing wonderful about modern food, it's just that we look down upon our own culture and many people are not aware of the nutritive value of the food mentioned above in our culture.

R4- As she has said already with these food people is associated as being poor if we bring them to school then others won't understand and won't be interested and would think that we taking them back to olden times and will also say that we live in modern times. But I do not align myself with those thoughts because I think IK will help us to show other people that this is our culture and we believe in it, those who don't believe in it those who don't align themselves with this don't follow their culture.

R1 –If you see many people are dying because we are now eating food that we do not know. At home my grandmother was born in 1913; she is still strong and even works in the garden and still eats traditional food like *umngqusho*, *ama-rewu*, etc. We eat modern food and we die young and we can't even work in the garden.

### 4. What can you say about changing lifestyles can IK change the way people live their lives?

R2- Yes we can solve those attitudes its not that you are poor when you are eating traditional food but you're going back to your culture. And I do understand that there is Technology. Technology has really impacted in changing lifestyles but that doesn't mean that we are going to follow the new technology , but that means we are not living in the future but rather remember the past where we come from and who we were before so that you can know yourself better.

R1-Referring to the point of Technology we used Technology in our olden food. To make *Ama-rewu, umvubo or umphokoqo* you can use this Technology her are things that I saw like making sour milk.

(Then I chipped in-what do you mean by using technology?)

I mean both we can use them eh! (Why?) Like there are nutrients that we lose like proteins and vitamins when we cook *umphokoqo* we can use technology by adding additives to that, that's what I mean.

R2- I was going to say that there is no need for us to use machinery to cook *umphokoqo* but what we do is to apply the knowledge to people on how to cook it well, so that the nutritive value is preserved.

(Then I chipped in -- modern society has its own way of doing things but our focus is on bringing in the two)

All respondents agreed: Yah!

##### 5. What benefits can IK bring?

R1-Benefits-it gives us new tourism? In our country to see the reality of South Africa of black people ad 2<sup>nd</sup> it will make those people who lost their culture their reality and identity to see that this is the real life that we lost the real thing and what we lost we must bring it back again to our places, o our new generation, to our unborn children, to see that our parents were used to live like this.

R2- I was going to say that it will bring back our pride so that our kids could learn and know where do we come from because if we do not do this may be in 2010 we all have forgotten about our culture, but then if we go back and associate ourselves with modern times it will be because our kids will benefit and they will still know their culture and our great grand parents will be happy that their culture is still a pride we haven't forgotten about who we are and where we come from because most people fought for us so that we can be free. They didn't fight for us for only to be free only and to be modernised and to get new technology and to get good education but they fought for us not 6to forget about our culture.

##### 6. How do see the fact that local community members will come and share local knowledge with you here at school, is that beneficial in anyway?

R3- Yah! I think that would be beneficial to our teachers as they do not have time to prepare these traditional things. Then a person from outside the school who has time,

when she/he come to school she/he will bring indigenous knowledge to the teachers. They will acquire those skills and pass them to the learners and grow with that. He will be perfect in those skills and can even open up a school.

(Then I chipped in- do you think that parents would really enjoy teaching and not be offended by teachers?)

Then all respondents answered and the tape could not clearly capture the response but the gestures showed that they agreed.

★ R4 Parents want to come here to see how we learn and share their knowledge with us and there won't be any person who would then say they do not know what is going on at school and do not want to come to school. There might more jobs created by this and the government will see there is something that local people are contributing to.

★ R2 I just want to add that I don't think that they will be offended because at the end they want us to benefit and they want to be proud of us. By coming here to school they will be making us proud and doing things we don't know so that we can be interested more about things in our culture because most parents are really, really trying and they do not know how to fight the fact that they are leaving back our culture. We need to ensure that we know we are black and we will always be.

(Then I chipped in-are they trying to teach you about cultural practices at home)

I can say they are trying but they do not have resources to do that, but if its going to be school related may be the government will be interested to give us resources so that we can do these things and at the end we need to do these things and to know them. The tourists may have an interest on the way of life and how we handled technology that we show that we are able to think critically too.

(Then I chipped in-Probe more on the issue of technology) Do you think that in our communities there is in born knowledge/scientific knowledge that older people are having?

R1 - It does exist because the technology we born with like people new how to cook *umphokoqo*, *ama-rewu*, *umphothulo*, I do not how to make it but I know nobody taught them (older people) but they did it on their own and by observing and no book was in front of them but they did it, that is their own food technology but now we are using electricity and then digging stones there were kind of stones that they knew that they can make necklaces, colour *imibhaco* where does that technology come from, from their minds, yah!

7. Can we trust local knowledge comparing it to scientific knowledge?

R2- According to my own view I trust it because local people were never taught big books, I grew up in a rural area I know how to make fire I just watched how it was done then that's how I learnt, there was no book. But now it's difficult for us to do local practices because of advanced technology, that is not wrong tough but we can go back to some of those old practices and combine them with modern technology.

R1- A very good example yesterday our science teacher taught us about pulling and pushing people knew that from birth the fact that you pull something in his/her mind knows that it should go some where and the person never learnt that from the book, but now we learn that in books.

R2- I think some of the people are not highly intellectual and struggle in books but I think if things are practical and work together with theory may be those people would benefit and at the end one would say I know how to do a particular thing and others could even be tourists guide in which he/she would explain to tourists about our culture, may be one is good in that.

R1- If something is done practical may be one doesn't know how to read, when reading that is not captured, but if something is done practical would remember easily that something was done like this when writing in a book that might enable the person to establish relation to what is in the book. Even at home I learnt how to milk cows by observing I still remember everything from what I observed when I was about 9 years.

8. What are about language, will the information (local knowledge) still be authentic if is translated?

R2 - I think that such knowledge must be recorded using the language, if one does not understand there must be an explanation there of, because like English our parents used to speak Xhosa but now they do understand it and even speak, through books they learnt so even other people who would read our language can make an effort to understand it. So the word can be written in Xhosa and then next to it an English explanation be put on the side.

R3- I think that local knowledge must be recorded in Xhosa because you cannot change *Umphothulo* and write it in English but a brief explanation in English could help one to understand the meaning. So that one doesn't get confused this would help him/her understand exactly what is being referred to there.

R1 Like *ama-rewu*, there is commercial one you don't see them written or translated in English, the original word as per the language is inscribed in the packaging and then further information is then written in English. But the word *Ama-rewu* doesn't change.

R2 -We are interested in *Ama-rewu* if we are going to learn about them not changing *Ama-rewu*.

9. Do you practice dishes that you learn in Home Economics at home?

R3- Some of them and some we don't have correct utensils and ingredients, sometimes you prepare a dish that needs a microwave some of us do not have microwaves at home the she/he won't be able to practice, ha is why its right that these must be learnt here at school even local food so that one get such knowledge from school even if there won't be practice at home.

APPENDIX E



Parent conducting "*Ama-Rewu*" demonstration



Learners observing "*Ama-Rewu*" demonstration

APPENDIX F

LEARNING PROGRAMME UNIT

SUBJECT: CONSUMER STUDIES

GRADE 10

LESSON: DEMONSTRATION OF LOCAL FOOD PRACTICE- AMA-REWU  
LEARNER RESEARCH ACTIVITY  
AUDIT

LEARNING OUTCOMES: 2, 3 & 4

ASSESSMENT STANDARDS: 1, 1 & 2

THEME: LOCAL SUSTAINABLE FOOD CHOICES

DURATION: 4 Weeks

This learning programme unit has four main activities:

1. Activity 1: Observation of demonstration on making of Ama-rewu- using an observation worksheet
2. Activity 2: Learner research activity: 1 week
  - (a) You have observed the making of *ama-Rewu*. Your task now is to conduct a mini research on people's local food choices with regards to *ama-Rewu*.  
This activity requires you to research the local people's consumption patterns with regards to ***Home-made and commercial Ama-rewu***. To collect information interview two people an adult and a teenager. Ask them about:
    - (i) If they know about the product
    - (ii) Do they know how to prepare it?
    - (iii) Do they prefer to eat/drink home-made or commercial *ama-Rewu* and why do they make such choices?
    - (iv) Also find out what they know about the impact of commercial and home-made *ama-Rewu* to the environment.
    - (v) What is the nutritive value of *Ama-Rewu*?

Present your findings by writing a Report – using the format of the questions.

3. Activity 3: Design a Poster which also serve as another form of presenting your findings especially on the ***nutritive value of Ama-rewu***. The poster can present both home-made and commercial *ama-Rewu*. -1 week including the audit  
NB. Your Poster must: show the nutritive value of the product  
Have written text and drawing or pictures  
be visually appealing

neat and a clear layout

4. Activity 4: Do an audit on local food consumed by people in your community  
Present your findings as follows:

Traditional food	Modern/western food

NB. All these activities won't be assessed formally as the contributions you will be making will add value to the research that is currently underway. The assessment that will be conducted with you will be informal one after you have submitted the work the researcher will spend time with you reflecting on all the processes and tasks you did as way of gauging you understanding and learning.

**APPENDIX G  
LEARNER RESEARCH ACTIVITY  
REPORTS SUMMARY**

**ADULTS – six interviewees**

<b>PREPARATION</b>	<b>NUTRITIVE VALUE</b>	<b>USE</b>	<b>AVAILABILITY</b>	<b>IMPACT TO ENVIRONMENT</b>	<b>SOURCES</b>
Six adults knew how to prepare ama-Rewu	All adults interviewed indicated that Ama-Rewu provides one with energy	All adults indicated that ama-rewu are used as a nutritious energy drink.	Commercial Ama-rewu are commonly available as people are not having time to prepare home-made Ama-Rewu	Commercial contribute to pollution as cartons are thrown away	LAct 1-6
Four of them have once prepared ama-rewu The rest (2) from the six being interviewed have seen how to prepare Ama-rewu	All the adults were not sure about the nutrients found except that they knew that Ama-Rewu provide energy (amandla)	Are used as food	Home –made are prepared by few due to the fact that some associate the use of product by the poor.	No impact to the environment and contribute to sharing of the ferment and that result to sharing community	LAct 1, 3 & 4
		Are used for the sick-Hiv-AIDS to give them strength	During Traditional ceremonics some people do prepare ama-Rewu	Home-made also eliminate waste as left-over porridge is used to prepare it	LAct 1; 2 & 5
		Prefer home-made then commercial one; because the home-made one is always fresh			

**APPENDIX I**

**AUDIT – SUMMARY OF FOOD EATEN IN THE AREA**

<b>TRADITIONAL DISHES</b>	<b>WESTERN DISHES</b>
<ol style="list-style-type: none"> <li>1. Umngqusho (Samp &amp; Beans); -</li> <li>2. IKetse (samp only)</li> <li>3. Umfuno (Cultivated vegetables like spinach, cabbage, etc.)</li> <li>4. Umphokoqo (Sour milk and maize meal porridge)</li> <li>5. Ama-Rewu (maize meal energy drink)</li> <li>6. Ulusu (tripe) and stiff porridge</li> <li>7. Umfino (edible wild plants)</li> <li>8. Umxhaxha (maize rice and pumpkin)</li> <li>9. Intyabontyi</li> <li>10. Isophu (beans and corn soup)</li> </ol>	<ol style="list-style-type: none"> <li>1. Rice</li> <li>2. Vegetables-spinach, carrots, cabbage, potatoes, etc.</li> <li>3. Pasta</li> <li>4. Meat</li> </ol>

All learners came up with similar foods eaten in the area.

<b>Traditional dishes</b>	<b>How often served?</b>	<b>Western dishes</b>	<b>How often served?</b>	
1, 2, 3, 4	Frequently	1,2,4	Frequently alternates with traditional frequently served dishes	
5, 6	Occasionally	Pasta	Occasionally	
7,8,9,10	seasonally			

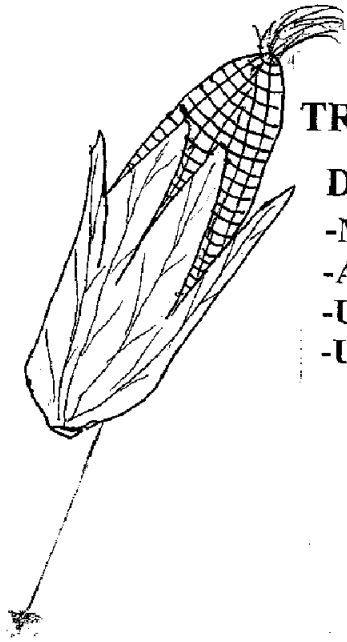
APPENDIX G  
CONTINUATION

TEENAGERS- six interviewees

PREPARATION	NUTRITIVE VALUE	USE	AVAILABILITY	IMPACT TO ENVIRONMENT	SOURCES
All six did not know how to prepare ama-Rewu but have seen the product	They showed intergenerational knowledge that ama-Rewu provide one with energy	Two teenagers have tasted home-made ama-Rewu	Home-made ama-Rewu are no more readily available in their homes said all the six teenagers	Home made are just prepared in big bucket at home and people drink from mugs	LACT 1-6
		Four teenagers have never tasted home-made	Ama-Rewu are sometimes prepared during traditional ceremonies in some households People share "umlumiso" (ferment) so that makes Ama-Rewu available for those who want to prepare it.	Commercial are kept in cartons that are later thrown- this contributes to littering	LACT 1,2,3 & 5
		Have heard that Ama-Rewu is used a drink and as food for those who do not have appetite for solid food	Three of them indicated that they buy Ama-Rewu from the shop (commercial		Lact 2, 3,6

I AM MAIZE HOME-MADE AMA-REWU

Ama-Rewu ANEMPILO (HEALTHY)



**TRADITIONAL FOOD**

**DISHES**

- MAIZE PORRIDGE
- AMA-REWU
- UMPHOKOQO
- UMNGQUSHO

**LEFT-OVER PORRIDGE  
FERMENT (UMLUMISO)**

**NO WASTE  
JUST ADD WATER**

**NEED JUST FEW HOURS TO  
FERMENT AND I AM READY**

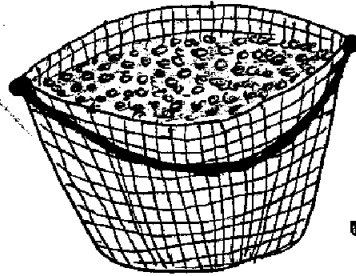
**FOR ALL AGES**

**PROVIDES ENERGY**

**NDINESONDLO**

**WE BLEND WELL TOGETHER  
FOR  
FERMENTATION (UKUVUNDISA)**

**MY COUSIN IS WHEAT**



**NUTRIENTS**

**VITAMIN B**

- for healthy nervous system
- release energy from food

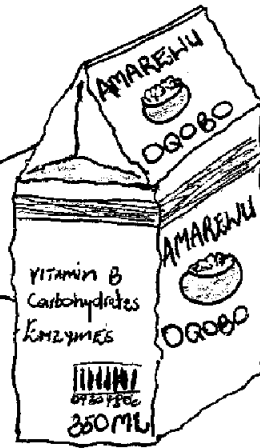
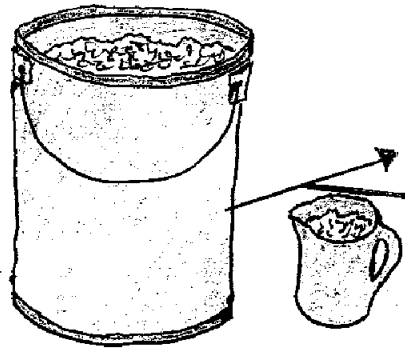
**CARBOHYDRATES**

- provides the body with warmth and energy
- saturated carbohydrates – glucose from fermentation

# AMA-REWU

## Ama-Rewu

### Home-made vs Commercial



PROVIDE THE BODY WITH ENERGY

FOR STRENGTH

NUTRITIOUS  
NO PRESERVATIVES

NATURAL FLAVOUR  
ALWAYS COOL

NO SELL BY DATES  
ALWAYS FRESH

ELIMINATES WASTE

CONVENIENT AND COST EFFECTIVE

READILY AVAILABLE AT HOME

STORED IN BUCKETS

ADDITIVES AND ARTIFICIALS  
FLAVOURANTS

EXPENSIVE

SELL-BY DATES

STORED IN CARTONS

ENCOURAGES WASTE

SHOPS/ SUPERMARKETS

HAVE ADDED NUTRIENTS

HOME -MADE AMA-REWU

NUTRITIOUS ENERGY DRINK

MAIZE

A THIRST QUENCHER (APHELISA UNXANO)

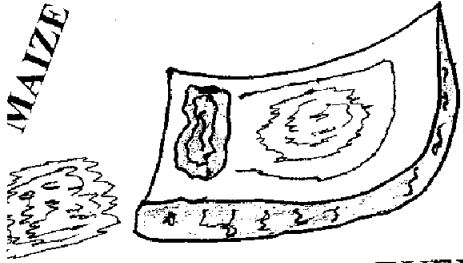
MAIZE -MEAL



TASTY AND DELICIOUS

GRINDEING STONE

SERVE AS FOOD



SERVE AS A DRINK

EVERYONE FIND ME NUTRITIOUS

FOR HEALTH



DULTS

TODDLERS



TEENAGERS



PROVIDE STRENGTH FOR THE SICK

POSTER 4

AMA-REWU

MAIZE MEAL + WHEAT FLOUR

↓ ↓  
PORRIDGE + UMLUMISO (FERMENT)

FERMENTATION

BREAKDOWN STARCH - GLUCOSE

AFTER FERMENTATION

CONTAIN NUTRIENTS

- \*B-VITAMINS
- \*CARBOHYDRATES
- \*ENZYMES
- \*WATER

IF YOU DRINK ME  
YOUR THIRST WILL BE SATISFIED

AND YOU'LL BE FULL  
OF  
ENERGY

TO KICK START YOUR DAY!