

## **Strategies for Enhancing Teaching of Food and Nutrition in Mutare Urban Secondary Schools, Manicaland Province**

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**Abstract:** *The study was carried out in an effort to come up with strategies for enhancing the teaching of Food and Nutrition (FN) at secondary level, in Mutare urban, Manicaland Province. It assessed the most common teaching methodologies used by FN teachers. The target population was derived from ten urban secondary schools offering FN, with an average of 4 teachers per school, thereby giving a total population of 40 teachers. Out of this population, a sample of 15 teachers was purposively extracted, with teachers from every location to make generalizations more meaningful and realistic. The main instrument used in the study was the questionnaire which sought to solicit information from teachers using both open and close ended questions. The descriptive survey research was employed and both the two research paradigms (qualitative and quantitative) were used. The major findings revealed that most teachers were qualified and knew the methods appropriate for the teaching of Food and Nutrition. However, the major challenge was unavailability of resources, such as ingredients for practicals as well as lack of improvisation by the teacher. Thus, marrying practice with theory was a challenge for most pupils. It was recommended that school administrators fully furnish FN laboratories for learning to be real for pupils. Teachers were also encouraged to avoid pupil boredom by using a variety of teaching methodologies rather than sticking to one or two only and to improvise as much as they possibly can.*

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### **I. Background To The Study**

Manicaland is one of the provinces in the country Zimbabwe. It is well known for being mountainous and as a tourist resort area. It is within this province that the town of Mutare is housed, on the eastern border of the country. Soon after the country's independence in April 1980, there was vast expansion in all sectors, including education. This era saw the construction of many secondary and primary schools in the country, and specifically in the province of Manicaland. According to Zvobgo (1997), primary education was made free and compulsory. The bottlenecking system which had prevailed during the colonial rule was now a thing of the past and many pupils upon leaving primary school proceeded to secondary education.

Various subjects have been on offer in the secondary school. These include science subjects, practicals, commercials and humanities. Under the practical subjects, there are categories under the area of Human and Natural Sciences where subjects like Agriculture, Fashion and Fabrics, Family Studies and Food and Nutrition are housed. Food and Nutrition is one of the 3 subjects covered under the discipline Home Economics (HE). HE is a broad and multifaceted practical discipline covering Fashion and Fabrics (FF), Family Studies (FS), as well as Food and Nutrition (FN). FN is mainly concerned with studying nutrients and their relationships with food and living things (Tull, 1996). The subject addresses issues involving understanding of diet related concepts, health, food choices and food processing, as well as meal planning. It is therefore critical that teachers have the professional competencies necessary for imparting data to the learner. As such, proper methodologies need to be employed for the teaching and learning process to be real and fruitful.

The subject Food and Nutrition involves the use of a number of teaching methodologies depending on the topics being covered, level of understanding of the learner, available resources, teacher competences, as well as availability of time. These methodologies are designed to enhance the learners' knowledge and skills acquisition. Its hands-on approach enables learners to develop manipulative skills and they end up having refined motor skills. Sprinthall and sprinthall (1991) likens a baby to a lump of clay that can be moulded and fashioned into any shape by the hands of the master craftsman, who is the teacher. So if the master craftsman fails to mould the baby well, then malformations are likely to occur and if not rectified in time, these will dwell with the child for a life time. This study therefore, attempts to address ways of improving or enhancing the teaching of FN at secondary school level.

#### **Statement of the problem**

The main challenge today is that of pupils failing to fully grasp the Food and Nutrient concepts. Thus, development of fine motor skills may not take place effectively, resulting in pupils developing a negative attitude towards the subject. John Dewey is a pragmatist philosopher, who advocates for marrying practical and theory. Pupils should not be regarded as passive recipients or on lookers, rather they need to be more practical in their learning. Teachers on the other hand, may fail to employ proper methods of teaching the various topics in

relation to the level of understanding of pupils, Petty (1993). Certain methods may be very much divorced to the level of comprehension of the learner, while the resources available may not support the teaching of a particular topic. Also improvising the available resources and being creative is another attribute that lacks in most Food and Nutrition teachers. The unavailability of infrastructure and equipment in some of the schools has been a great hindrance in the normal delivery of the subject. This has therefore resulted in pupils not performing at maximum as is expected. When given theoretical work, they perform so well, but when it comes to the practical aspect, pupils fail to apply the concepts taught during theory. This divorce existing between the practical and theoretical components has been a cause for concern for a long time. These aforementioned issues have therefore triggered the study to explore ways of enhancing the teaching of Food and Nutrition in urban secondary schools, in Manicaland province.

### **Conceptual framework**

Food and Nutrition is one of the three subjects covered under Home Economics. It is a scientific study of foods and their nutrients in relation to the body that is fed by the food. As put in by Guthrie and Picciano (1995), it addresses nurturing or nourishment of the body. It also concerns itself with the methods of cooking and appliances ideal for certain foods for maximum nutrient retention as well as individual needs as far as digestion, absorption and assimilation of nutrients is concerned. Therefore, proper teaching of Food and Nutrition will go a long way in ensuring a healthy nation. Various teaching strategies are in use today and teachers are called for to employ correct methodologies during their teaching.

### **What is a teaching method?**

As put in by Behr (1976), a teaching method is primarily concerned with the most appropriate presentation of lesson material in any given circumstance. No single method will serve equally well in all situations. In as much as teachers are inclined to favour particular styles and techniques dictated largely by subjects taught as well as their personality make-up, it needs to be pointed out that no teacher can solely rely on a single method. In this case, Behr (1976) is implying that in the course of presenting his lessons, the teacher is invariably required to use a variety of methods. While it is true that each subject has its own special method, leading educationists such as J.J. Rousseau (1712-78), J.H. Pestalozzi (1746-1827), John Dewey (1859-1952), Maria Montessori (1870-1952) and Hebert Spenser(1820-1903), among many others, have stressed the importance of general method, according to Behr (1976). For instance, Pestalozzi drew attention to the need for personal experience in learning. Spenser on the other hand, provides a number of teaching maxims, such as to proceed to teach from the known to the unknown, simple to complex, concrete to abstract and from the specific to the general. As put in by Duminy (1979), sharing the same sentiments with Behr (1976), it has to be noted that the development of a general educational method has not taken place in isolation, but rather is a result of the developments in other spheres of education. It has been influenced by changes in theories of psychology of learning as well as the philosophical conceptions of the nature of man.

### **Classification of teaching methods**

Teaching methods are categorized into two main groups, which are the **teacher centered** approach and the **child centered** approach.

In the teacher centered approach, there is a great deal of expository teaching in which the teacher is mainly a purveyor of information, for instance during the lecture method. In the child centered method, more attention is given to individuals and group work, where pupils are required, under guidance to seek solutions to problems, and where they are stimulated to produce and develop their own ideas, (Behr, 1976). These methods can also be deductive or inductive, according to Petty (1993). In inductive methods, individual examples are used to bring out the general principles underlying them. Most scientific discoveries and creative processes in general are the outcome of the inductive method and are based on the principle of **a posteriori** logic which proceeds from a particular set of causes or facts of experience to the general law or principle, or from the effects to the cause which is not yet known or understood. On the contrary, the deductive method is based on the principle of **a priori** logic which proceeds from some general law or premise, the truth or validity of which is taken for granted in advance, to some particular case, or from the cause which is already known and understood to the effect. This method is used extensively used in mathematics, according to Behr (1976) and Duminy (1979).

### **What are the most common methods of teaching?**

Quite a number of teaching methodologies have been in use for centuries. Others have evolved along the way, while others are mere modifications of some classical methodologies. Kochhar (1997) stresses that the choice of a teaching method/s depends largely on the information or skill that is being taught. It may also be influenced by the aptitude or enthusiasm of the students. According to internet source

(en.wikipedia.org/wiki/Teaching-method), teaching methods comprise the principles and methods used for instruction. Of note, are the following methods, some of which are mostly used in schools and are going to be elaborated here-in.

1. Demonstration
2. Explaining/ Lecturing
3. Discussion
4. Experimentation
5. Project work/ Problem solving
6. Collaborating
7. Learning by teaching/ peer teaching
8. Debates ( formal and informal) on current issues by students
9. Guided individual discovery/self discovery learning

### **1) Demonstration as a method of teaching**

As far as practical subjects are concerned, Demonstration is the best known teaching method. It is used to guide the development of the pupils' psycho-motor skills to be efficient, according to primary syllabus for Zimbabwean schools, 2002. Farrant (1990) defines demonstration as a practical form of learning by imitating. On the other hand, Gatawa (1990) defines it as a direct means of explaining things to pupils. During demonstration, people are informed about how to carry out a particular task, with possible inherent dangers being explained or shown. It has strength in that it calls for an increased degree of attention, concentration and interest which can be further exploited by other techniques, i.e. pupils will be creative in their way of thinking. The increased activity level of the pupils leads to the acquisition of new knowledge and skills which will be useful in future. Another strength of demonstration is its ability to provide a concrete and realistic visual picture of what is being presented to supplement world images. This usually results in a more lasting impression, according to Kochhar (1997). The senses of sight, smell, touching, hearing or taste are enhanced and the experience builds tangible images in the minds of the learners which maybe very permanent. The demonstration can be spot or step-by-step, depending with the skill being taught. This is a key method in the teaching of Food and Nutrition because of its pragmatic approach, because after demonstration, the pupil must be able to follow suit, (Kochhar, 1997).

### **2) Explaining/Lecture**

Explaining or lecturing is the process of teaching by giving spoken explanations of the subject that is to be learned. Explaining or lecturing is often accompanied by visual aids to help students visualize an object or problem. Lectures on the other hand are often geared more towards factual presentation than connective learning. It is a very appropriate method for enhancing learners' acquisition of knowledge. Montessori (1969) highlights the need to have a child taught how to do a task before execution of the task. The lecture thus becomes the foundation method upon which other strategies are going to be built to complete the process of learning. Other methods like the demonstration or experiment method can only be effective on condition the lecture method has been made proper use of. At the end of the day, it becomes clear that no one single method can work on its own.

### **3) The Discussion Method**

This method comes in handy and is most effective when stimulating and facilitating the learning process. The discussions can be carried out in groups or even at classroom level, where learners interact sharing new and old ideas and enriching their knowledge. According to Wikipedia, free encyclopedia, discussions are superior in contributing to the application of the materials learnt and building attributes that are important in shaping behavior patterns. Pupils easily understand when they discuss what they have learnt as they will be clarifying understood concepts. As such, pupils will not easily forget what they have discussed. Team spirit or a spirit of oneness is built through discussions. Farrant (1990) posits that discussions enable children to get on well as they are involved in group activities and discussions. Children may have a positive attitude and behavior towards others.

### **4) Experimentation**

This is an approach that involves laboratory work where learners solve their problems with practical apparatus. Pupils make trials in order to study what happens and gain knowledge and skills through examining, investigating and observing to come up with conclusions. Dewey, who advocated for the pragmatic philosophy to teaching, highly encouraged the use of experimental methods in the teaching of FN. In other words, pragmatism according to Dewey is an overriding philosophy in practical subjects because it is a philosophy of action and deeds, which encourages practical activities by pupils to be well executed. For instance, in Food

Science, the experiment method can be used when testing for the presence of starch using iodine solution. Both the test and control groups will be observed. The blue-black colour signifies the presence of starch. Pupils will be involved in putting the reagents together and making necessary observations and making recordings. The experiment method, together with the demonstration method is key in the teaching of Food and Nutrition and they promote content mastery and skills manipulation by pupils.

#### **5) Project Method/ Problem solving method**

This is another teaching methodology which employs a participatory approach. This is whereby pupils are given tasks to execute and discover on their own as they actively participate as individuals through use of their own hands. Behr (1976) stresses that the project method originated in the USA with the rise of 'progressive school movement.' A project was described as a large problem of practical concrete, manipulative type, which challenges the interest of the student and draws out his powers of planning in the actual solution of his problem. Its essence and advantage is that pupils will remember vividly activities done through this method and promotion of cooperative group work. Pupils share ideas, experiences and knowledge and they develop a sense of responsibility and display initiative and self criticism. Behr (1976) concurs with Williams (1982) that the teacher's responsibility is to ensure that pupils learn from one another, with each pupil contributing his share on the basis of his ability and interest. The more mature pupils undertake the abstract and difficult features of the task, while leaving the simpler and routine elements to others. Also concepts learnt can also be used solve immediate problems and even those encountered in the future. Sprinthall and Sprinthall (1981) states that if children are engaged in problem solving activities, they learn better. Problem solving enables children to apply the knowledge and skills gained if they face the same problems at home. Problem solving method involves identification of the problem and devising a plan.

However, it has to be noted that projects require a lot of time, they cut across ordinary class teaching and normal timetable arrangements. They don't have to be overstretching as this will result in lack of coordination and pupil enthusiasm and interest will be lost, Behr (1976).

#### **6) Collaborating**

Collaboration allows students to actively participate in the learning process by talking with each other and listening to other points of view. Collaboration establishes a personal connection between students and the topic of study and it helps students think in a less personally biased way. Group projects and discussions are examples of this teaching method. Teachers may employ collaboration to assess student's abilities to work as a team, leadership skills or presentation abilities. Collaborative discussions have many forms, e.g. fishbowl discussions. After some preparation and with clearly defined roles, a discussion may constitute most of a lesson, with the teacher only giving short feedback at the end or in the following lesson.

#### **7) Learning by Teaching/ peer teaching**

In this teaching method, students assume the role of teacher and teach their peers. Peer teaching is also known as the monitorial system, (Farrant, 1980). Students who teach others as a group or as individuals must study and understand a topic well enough to teach it to their peers. By having students participate in the teaching process, they gain self confidence and strengthen their speaking and communication skills. In this system, pupils communicate with other pupils those lessons they have been taught by the master teacher and this is a way of multiplying the person and skill of the teacher and encouraging bright pupils to exercise their gifts. Since the very act of teaching requires that one understands what s/he is going to teach, this becomes very beneficial to the pupils who are thus helped to develop maturity as a result of the responsibility placed upon them.

#### **8) Debates**

This is a scenario where the teacher gives a topic for discussion with students grouped into two groups opposing each other for the purposes of constructive criticism. This is when intelligent minds come together. According to an internet reference, it is a discussion, as of a public question in an assembly involving opposing viewpoints, ([dictionary.reference.com/browse/debate](http://dictionary.reference.com/browse/debate)). In Food and Nutrition, '**Traditional methods of cooking are more nutritious than those of today,**' can be a topic for debate. Teacher's role is that of facilitating the debate making sure it remains focused.

#### **9) Guided Individual Discovery/ Self discovery learning**

According to Farrant (1980), discovery learning is sometimes known as heuristic method. Behr (1976) also reiterates that apart from being called the heuristic method, the discovery method, as termed by Hebert Spenser, is the art of making children discover things for themselves. Its claims are such that, "... knowledge gained by self effort and discovery is better assimilated and remembered than that which is merely memorized," (Farrant, 1980:46). Spenser states that children should be told as little as possible and induced to discover as

much as possible. However, it has to be noted that, it is not easy to strike a sound balance between providing too much and too little guidance and the system can only work where there are good supplies of well indexed resource material.

### **Implications of Pragmatism in the teaching of Food and Nutrition**

John Dewey is one pragmatist proponent who sought a more practical outcome in the teaching and learning situation. According to Kochhar (1997), pragmatism protests emphatically against the notion that the child should sit differentially at the feet of any teacher, however inspiring, learning in humble and relatively passive fashion what is prescribed from above. The child should not merely acquire results of other people's thinking, but rather to forge for himself the knowledge and skill necessary to deal effectively with situations of real life. In other words, pragmatism, always tend to stress actions rather than reflection, it countenances no divorce between theory and practice. It calls for 'learning by doing'. As far as the teaching of Food and Nutrition is concerned, the most general method of educational pragmatism is putting the child into situations with which he wants to grapple and providing him at the same time with the means of dealing with them successfully. This is further affirmed by Montessori (1969) in the Montessori Method where she stresses that children should be taught how before they are made to execute a task. In Food and Nutrition, a pupil should not be told to prepare a cake by the creaming method before the teacher demonstrates the creaming process and then explains the how and why part of the process. Having seen the expected result, pupils can then be tasked to come up with a similar or related item.

### **Objectives of the Study**

It was the thrust of the study to:

- Establish the appropriateness of methods of teaching used by Food and Nutrition teachers during lesson delivery.
- Devise strategies handy in the teaching of FN at secondary school level.
- Identify the most ideal methodologies and strategies to co-opt during learning and teaching situation.

### **Purpose of the study**

The study purposed to improve or enhance the teaching of Food and Nutrition in secondary schools. A big knowledge gap existed between the stuff learnt in theory and the practical aspect in the classroom. This was because what was usually taught in class was not followed by practice in form of cooking lessons and pupils would end up not being competent. Development and refinement of fine motor skills was hampered because of this. The significance of this study is therefore to enlighten school administrators and teachers on ways of improving the teaching and learning of Food and Nutrition in order for pupils learning outcomes to be fully maximized.

### **Assumptions**

The study made the following assumptions:

- That there was a large knowledge gap in pupils that existed between theory and practice as far as Food and Nutrition was concerned.
- That teachers were not fully exploiting the variety of teaching methods that that were at their disposal, for the benefit of the pupil.
- That where resources lacked, the teacher could still improvise to make the learning environment more realistic.

### **Key Terms Used in the Study**

Teaching methodology

Demonstration

Theory and practice

Pragmatism

Fine motor skills

## **II. Methodology And Research Design**

Methodology can be referred to as the strategies employed in order to collect and analyse research data, Newman (2003). Leedy (1997) stresses the need to organize data so that from it more valuable and meaningful outcomes can be extracted. On the other hand, Cohen and Manion (1994) view research as an overall plan for obtaining answers and testing the research hypothesis. Creswell (2005) defines a research design as a process encompassing the methodology procedure that is employed to conduct a research. Given that the research design is a detailed plan, it is a print on how the research is to be conducted describing the when, where, what and how

of data collection thus helping the researcher to keep focused. A descriptive research design was used to solicit information from Food and Nutrition school secondary school teachers in Mutare Urban schools.

### **Population**

According to Best and Khan (1993), a population is a well defined group of individuals or other entities having one or more characteristics in common that are of interest to the researcher. It is that group about which the researcher is interested in gaining information and drawing conclusions, Tuckman (1994). For the purposes of this study, 10 urban secondary schools offering FN were selected with an approximate number of four teachers per school, bringing the total to 40.

### **Sample and Sampling Procedures**

A sample is a small portion of the population selected for observation and analysis, as put in by Best and Khan (1993). It represents the bigger target population and it is from this smaller group that conclusions are drawn and generalizations made. In this study, the sample comprised 15 Food and Nutrition teachers purposively sampled from every location in town to make a fair representation.

### **Instruments for data collection**

An instrument is a tool for use by the researcher in a systematic collection, presentation, analysis and interpretation of data in an attempt to provide answers to research questions. The questionnaire was the main instrument used to collect information in this study. Best and Khan (1993) defines it as a data gathering instrument through which respondents answer questions or respond to statements in writing. In this particular study, questionnaires were used to obtain information from FN teachers with regards to the way they deliver their lessons. Instruments were also tested for validity and reliability through conduction of a pilot test before they were administered to the actual respondents.

### **Findings Of The Study**

After data was collected, it was analysed and interpreted and the following findings were obtained.

#### **Demographic Information of respondents**

The first question sought the ages of the teachers. Out of the 15, five were in the age range of 25-30 years, another five were in the range of 40-50 years, while another 2 respondents ranged between 30-40 years. Yet another 2 out of the 15 were below 25 years, with only one in the 50 years and above category. These results therefore indicate that the bulk of the teachers were in 2 age categories, the 25 to 30 those who had just left college and were still getting established, as well as the 40 to 50 years. Due to economical challenges befalling the nation, these might have tried other avenues during their middle ages and might have come back to teaching at a more mature age.

With regards to sex, the study established that respondents were all females. There was a male shortage, implying that this was a female dominated field or a feminine career. This could have been caused by gender stereo-typing which was also enhanced by the colonial rule. According to Zvobgo (1997), during the colonial era, a dual system of education was introduced where F1 schools were for the whites, with F2 schools being for natives. The F2 schools offered brick-making, building, farming and carpentry to boys, while girls were trained to major in cooking, sewing and laundry as well as home maintenance.

Asked on their teaching experience, the majority of the respondents (60 %) had 0-2 years teaching experience, 33.3 % had 10 years and above teaching experience, with only one respondent in the 2-5 year category. The fact that the majority of teachers had experience of not more than 2 years, could have been the reason for poor performance during the teaching process, as teachers were still exploring new avenues every day. The slightly over 30 percent respondents who had an experience of 10 years and above might not have been doing justice during their teaching, or lack of resources could have been another hinderance.

On the issue of professional qualifications, most of the teachers 11 (73.3 %) were diploma holders, 2 held Bachelor's degrees, one was a student teacher. The one with the highest qualifications held a Masters degree. From these results, it can be established that teachers awaiting training were a rare commodity in urban schools as most of them were qualified, though with minimal qualifications. Advancing studies on the part of the teacher helps her to sharpen her mind and thus will also be able to mould her product sharply.

### **Section B**

On the question which sought to establish the most commonly used methods of teaching FN, the following findings were noted. Demonstration was singled out as the most commonly used method of teaching by 13 out of the 15 respondents. Its frequency was followed by the whole class discussion method with (9/15), group work/discussion (8/15), lecture method (8/15), field trip (5/15), as well as question and answer with(5/15).

The least used methods of teaching were experimentation with (2/15), project/ research (2/15) and lastly, individual work with a single respondent.

In justifying the choice of method, demonstration was said to be very efficient, since during practicals it helped pupils to grasp skills well since they would observe and 'experience' the process/skill. Demonstration helps pupils to understand and master different techniques and skills from the teacher, and in return they will also be able to practice these skills as pupils see reality in what they are doing. This therefore ensures good results in practicals and quick grasping of ideas. This method also helps pupils to identify and remember ingredients and equipment used. Above everything else, demonstration is effective as it uses a multi-sensory approach e.g sight, feeling, smelling, hearing and smelling.

The question and answer question was also justified as appropriate especially when one wants to check whether students have understood what was taught. The teacher gets to know problematic areas of students which can therefore be corrected. In other words, the question and answer method helps teacher to detect strong and weak points and thus work towards achieving better results.

The lecture method was said to enhance learners' acquisition of knowledge. It is through this method that pupils get to understand what they are going to prepare during practicals well in advance. On the other hand, group work was justified as being helpful to pupils in promoting cooperation and sharing of ideas among pupils in class. Every individual is likely going to participate and this is also an ideal method during practical lessons. Class discussion was also selected by some teachers because of the easy interaction it offers among pupils. There is sharing of ideas amongst pupils and also between teacher and pupils.

There are two other methods of teaching less frequently used, yet so important. These are the field trip and experimentation. Through experiments, learners discover for themselves as they can easily see results and capture concepts quite clearly. On the other hand, field trips offer the opportunity for pupils to observe production stages taking place, e.g in the processing of milk and other dairy products. The opportunity granted by the field trip is a real life experience and the information comes from an expert in the area who is actually demonstrating on the job hands-on experience. However, such trips are often dismissed as very costly for most schools, no wonder why they are a rare phenomenon.

Respondents were further asked to state whether they faced any challenges in applying any method of teaching. In response, the majority (86.7 %) cited that they faced some challenges in administering some methods of teaching, while only 2 respondents (13.3 %) indicated that they had no challenge at all. The lecture method was cited as very difficult for students to grasp concepts without seeing the real thing. For instance, teaching about the microwave oven, pressure cooker, steamer or electric mixer. Another method was the field trip which was said to lack funding from most school administrations, and not all pupils would be able to pay for the school trips, in case they were asked to. Lack of resources also threatened the project/ research method. Group work was noted as not being always effective because not all group members participated as some were more domineering than the others. Demonstration can be a great challenge especially when dealing with a big class, pupils tend to lose focus.

In response to the question that demanded what determined one's choice of a teaching method, various responses were given. The majority cited set learning objectives as the major determinant of choice of method. Other responses included content of the topic to be taught or skill to be imparted, teacher-pupil interaction, time available, availability of teaching aids and other resources. Others also cited ability level of class/ learners. For instance, a topic on cake making may have a set objective that requires a cake to have been baked by the end of the lesson. Demonstration as a method of cake making comes in handy as the teacher will first show the pupils the procedure before they follow suit.

Other contributions obtained from the respondents were the need to introduce labour saving devices and more modern equipment electrical equipment such as coffee makers, cake mixers, juice extractors, instead of wooden spoons only. Lack of equipment results in use of unnecessary alternatives, which tend to confuse pupils. Rather, furnish rooms with enough and appropriate equipment. Also gas stoves are very helpful to use especially during power cuts. Teacher-pupil ratio to be considered since some of the classes are too large, e.g 35 pupils/ teacher, hence it becomes difficult to monitor each child's performance.

Ingredients need to be bought on time, so that practicals flow smoothly. There has been a great challenge of lack of ingredients in most cases. Pupils should eventually be given opportunity to work as individuals, not in groups every time. Cluster workshops as well as district workshops, provincial and national workshops e.g the ZHETA platform are necessary for upgrading and in-servicing teachers. To ensure continuous learning, teachers should give plenty of assignments or tasks including those that require use of ICT.

### **III. Discussion**

From the findings elaborated above, there is need to revisit some grey areas. Being a female dominated environment, if men could chip in and offer their contribution, there could be a strike of balance. Limited experience also limit one's competence thus the product can never go beyond that of its mentor.

Qualified they are, but there is need to upgrade or have more cluster workshops for the in-servicing of teachers. The most commonly used method was the demonstration method and it is very ideal for practicals. However, in as much as this method was in use, challenges still existed. For instance, 86.7 % cited challenges in applying teaching methodologies, of which demonstration is one. Their choice of method is okay, but the challenge is on its practicality or applicability. The fact that some classes are too big for one to manage a single demonstration, it therefore calls for teachers to be more vigilant in ensuring that every pupil benefits at the end of the day. Teacher can also make use of peer educators, those with more refined motor skills will assist with demonstrations to their peers in their respective groups. Teacher will then move around correcting and or reinforcing where necessary.

There is no single method that can be used on its own successfully, without depending on the other. Demonstration if used on its own will leave some areas grey. Infact, it should be used together with the lecture method to explain certain actions. For instance, when preparing cakes by the rubbing in method, teacher while demonstrating the rubbing in method, also explains the purpose of using finger-tips, also clarifies when rubbing in should be stopped. This should be by word of mouth. However, lecturing, if used on its own has many demerits especially for the level of understanding of pupils. Lecturing as alluded to earlier is best used together with demonstration or with the question and answer approach. The question and answer method cannot be used well on its own but requires the lecture method to reinforce and or correct certain concepts. It might also be used in conjunction with the demonstration or the experiment method which allows for observation to be made and conclusions to be deduced. Where there is no realia in terms of teaching aids, teachers can opt for pictures or drawings for pupils to be able to visualize. Pupils can be given tasks or assignments to go and look up certain pieces and equipment and this will go a long way in bringing life to the learning environment.

When addressing issues to do with little or no funding from administration, with regard to field trips, teachers to be more improvising so that they bring reality to the classroom. Sometimes invitation of experts from the industry will go a long way in easing a topic which the teacher could not have easily handled alone. Other field trips can still be carried on condition that planning has been done well in advance and if possible parents are informed in time to save for the trip.

Incompetence on the part of the teacher has been a great huddle in the proper administration of teaching methodologies. For instance, the experimentation method is rarely used because the teachers themselves are ignorant of the procedures to be carried out. Technophobia can also have a firm grip on them that they would rather opt for their day to day monotonous routine methods, than venture on new unknown terrain. The world of technology also calls for the use of modern labour saving gadgets like the electric mixer, rather than adhering to the old fashioned wooden spoon technique which is more cumbersome. Cooking becomes a lot easier and exciting if appropriate equipment is used with the efficiency that it offers, employing methodologies that are more learner centred and do not require much input from the teacher, serve for facilitating, will also arouse the desire to learn and explore in pupils. Such methods include the project method, guided individual discovery, as well as the group work/ discussion.

Another strategy for enhancing the teaching of FN is to employ team teaching. This is an approach whereby there is no one teacher teaching the pupils, but a team. Teachers' areas of strengths and weaknesses are identified. The strong areas are concentrated upon and teacher only comes in to teach a particular topic, thereafter another will come with a different topic altogether until the whole syllabi is covered. This means that if one of the teachers has a difficult approach, a pupil may miss out on that teacher's topic but can still benefit from other teachers. This is a tried and tested approach in most tertiary institutions which offers variety of approaches and techniques.

In as much as the FN teachers may have their shortcomings, these are nowhere near the shortage of resources that is in schools. This has to a great extent hindered the smooth flow of the teaching- learning process as pupils had to put up with unnecessary and often confusing alternatives. For instance, the dish 'chicken casserole' should be cooked in a casserole dish, due to unavailability, this may then be cooked in a sauce pan yet it's not the ideal equipment. Another issue is that of ingredients shortage and this has been the major cause of the divorce existing between theory and practical. Teachers, because of lack of ingredients end up theorizing the practical lesson thereby making it an unrealistic world for the learner. When the ingredients are finally bought, they are not in sufficient amounts, and other major ingredients may be lacking. A pupil may know a foodstuff by name and not by physically identifying it. This is very common, particularly with herbs and spices such as mint, rosemary, sage, ginger, garlic, thyme, pepper, among others.

For as long as there should be a continuous process of learning and teaching, the teacher can never relax, but should also continuously learn more and improved strategies for the benefit of the learners. There should never be a time when the learners operate at a level beyond that of the teachers cognition otherwise s/he ceases to be a teacher. Therefore being ahead of them always will help teacher to prepare the right staff and pupils will always be eager to learn more.

#### **IV. Conclusion**

Various aspects have been identified as being the major hindrances to the smooth flow of teaching and learning activities during FN lessons. Chief among these are the unavailability of resources such as equipment and ingredients to use during practical lessons. The child therefore sees no link between these two. The FN labs are not well furnished to promote learning and some pieces of equipment are outdated and no longer functional. This causes confusion on the part of the pupil during practicals, because what is written in the recipe book is not what is on the ground to use. Lack of the financial resource has resulted in most teachers conducting more theory lessons at the expense of the practicals thereby creating a barrier between theory and practical components. Overuse of only one or two methods of teaching has been another challenge resulting in monotony and pupils end up getting bored by the same approach every time. The study has therefore tried to address these ailments in order to enhance the teaching of Food and Nutrition at secondary school level.

#### **V. Recommendations And Way Forward**

Given the findings and discussion given above, the following recommendations have been given for a possible way forward.

- Inservice training and departmental cluster workshops to facilitate staff development among FN teachers
- Teachers employ team teaching strategies so that they offer the best to their pupils and their weak areas are covered by their colleagues who may be strong at them.
- That a variety of methods be applied during the teaching-learning process
- Teachers to improvise as much as possible where resources are scarce in order for learning to be realistic and more meaningful to the learner.

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