**INTRODUCTION**

My name is Temitope Esther Osigbeme from Nigeria. I have extensive food handling experience and earned a certificate in catering and event planning from Capacity Development and skill enhancement Initiatives, a food safety certificate from an online training platform Allison. I possess more than 15 years of experience in food handling. I have worked with Anike's Catering Services as a cook for five years, this gave me the basic knowledge of food handling and presentation. During the cause of my work there, we have catered for large events like wedding, conferences, seminars and lots of parties which made my journey as a chef a seamless. I have had the opportunity to work with chefs who had retired from 5star hotels, this gave me the practical experiences of food handling and kitchen management in line with NAFDAC Specifications, global HACCP (Hazard analysis and critical control point) regulations and global good manufacturing practices. I have worked as a cook, Chef, head chef, sous chef, catering manager and executive chef at Anike's Catering, Ofada Heaven restaurant, and Welcome center hotels limited, Fame Lagos, Elizemma catering respectively. My experience has imbued me with a deep understanding of the intricacies involved in food handling administration and the idea to solve the problem malnutrition in school children in Nigeria.

**SCHOOL CHILDREN NUTRITIOUS LUNCH PARK PROJECT**

**CHALLENGE:**

Around 11 million Nigeria children are experiencing severe child food poverty. Extended exposure to economic hardship can harm children's development. Low-income parents in Nigeria have no time and resources to feed their children with balance diet. They are always out there struggling to meet their children most basic need for food, housing and quality child care. Being hungry or poor-quality food pose tremendous obstacles for children to succeed in school, it has also exposed some children to several abuse. Children's brains are developing rapidly and the child who do not receive sufficient nutrients are at high risk of exhibiting impaired cognitive skills. Experts say that Food-insecure children have a harder time getting along with others and are more likely to repeat a grade, poor mood and ability to concentrate are often observed in children who have been without food for too long.

**SOLUTION**

Educational support through the provision of nutritious lunch pack that contains the most basic nutritional need of a child e. g Carbohydrates, protein, fat and oil, vitamin, minerals, fiber and water. This will help to improve children's education, health and nutrition, it will impact the quality of life positively and access to nutritional status of school children. Eating balance diet at least once a day will play a vital role in reducing malnutrition among school children thereby supporting their physical growth, improving cognitive development, concentration, mood and academic performance. Our nutritious lunch pack project aims to supply this food to children at a reduced - price. Our target are children between the ages of 6 to 13 living in the slum area of Lagos e. g Mushin, Oshodi, Itire-ikate. We expect over twenty thousand school children to benefit from this project as we hope to increase the number with time. Our lunch pack consist of food rich in iron, zinc, B vitamins, vitamin C, folate, antioxidants, omega-3 fatty acid, protein and Carbohydrates. All these nutrients are essential to a child's physical and cognitive development. We ensure that the above nutrients and more are contained in our nutritious lunch pack.

**FOOD PRODUCTS DESCRIPTIONS.**

Our ingredients are fresh, sourced from local farm markets, all food will be prepared daily.

We have different menu for each day of the week from Monday to Friday in order to balance weekly diet.

1.Corn meal, jute leaves, beans and tomatoes mix soup with Beef and beetroot juice

2. Rice, vegetable sauce, egg and dry fruits e.g dates

3. Vegetable pasta, fish and fruit smoothie

4. Bread, beans and steamed vegetables

5. Potatoes bean portage, fish and fruit slices

**BUDGET AND FUNDING**

Our budget for this project is $19,000. Daily production cost is estimated to about $6000 which is the sum of each lunch pack multiplied by 20,000. That is $0.3 × 20,000=$6000. This cost provided by the parent of the school children who show interest in the lunch pack. We need funding of $12,000 from UNICEF for logistics, equipment and salaries. $3918.80 will be for purchase of foreign used van, $2,110.2 will be used to purchase four industrial double gas burner, cylinders, deep freezers, $1, 217.09 will be for the purchase of cooking wares e. g large pots, pans, spoon etc.$4677.60 will be for worker's salary for 12 months.

**RESEARCH**

Research shows that the brain controls and manages nearly everything you do, from thinking and feeling to remembering and deciding. It also takes care of important tasks like breathing, sleeping, and keeping your heart beating without having to consciously think about it. Eating foods full of nutrients can help improve your memory and focus. Eating a balanced diet with all the necessary nutrients is very important for keeping your brain working well and staying healthy.

How Nutrition Impacts Cognitive Function in Students

‘What you eat affects how well your brain works!’ Good nutrition helps with focus, learning, and academic performance. The brain needs a steady supply of nutrients to function properly.

**a. Energy Supply to the Brain:**

The brain relies heavily on glucose as its primary source of energy. Consuming balanced meals that include complex carbohydrates gives the brain a constant flow of glucose, which helps it work its best.

**b. Omega-3 Fatty Acids and Brain Structure:**

Omega-3 fats, which can be found in fatty fish, flaxseeds, and walnuts, are really important for keeping brain cells healthy and working right. These fats, especially one called DHA (docosahexaenoic acid), are key for helping with brain activities like remembering things and problem-solving.

**c. Antioxidants and Protection Against Oxidative Stress:**

Fruits and vegetables have antioxidants that keep the brain safe from harm caused by too much oxygen use. This is important because the brain is easily damaged in this way. Antioxidants fight off harmful substances, which helps you prevent problems with thinking and keeps the brain healthy.

**d. Vitamins and Minerals for Nerve Function:**

B vitamins, found in whole grains, eggs, and leafy greens, are essential for energy production and nerve function. Proper nerve function is crucial for the transmission of signals within the brain, influencing learning, memory, and overall cognitive performance. Minerals like iron also play a role in oxygen transport to your brain.

**Brain Boosting: How Nutrition Impacts Cognitive Function in Students**

**e. Protein and Neurotransmitter Production:**

Proteins, found in foods like lean meats and dairy, are the basic building blocks for neurotransmitters. These neurotransmitters are like messengers that help brain cells communicate. Having enough protein helps make these messengers, which affect your mood, attention, and thinking.

**f. Hydration and Cognitive Performance:**

Dehydration can impair cognitive performance. Water is essential for various physiological processes, including nutrient transport and waste removal in the brain. You have to maintain proper hydration levels and are likely to experience improved attention, concentration, and overall cognitive function.

**g. Balanced Blood Sugar Levels:**

Consuming a well-balanced diet that includes complex carbohydrates, proteins, and healthy fats helps regulate blood sugar levels. Fluctuations in your blood sugar can affect concentration and mood. Stable blood sugar levels contribute to sustained energy and cognitive performance.

**h. Impact of Fast Food and Sugar:**

Diets high in processed foods, saturated fats, and added sugars have been linked to impaired cognitive function. These foods may lead to inflammation, insulin resistance, and oxidative stress, negatively affecting your memory and learning abilities.

**i. Micronutrient Deficiencies and Cognitive Impairment:**

Deficiencies in certain micronutrients, such as iron, zinc, vitamin B12, and folate, have been associated with cognitive impairment. Ensuring you have a diet rich in a variety of nutrients is essential for preventing deficiencies that could compromise cognitive function.

**j. Timing of Meals and Cognitive Performance:**

The timing of meals can also influence your cognitive performance. Regular, well-timed meal…

**PARTNERSHIP AND COLLABORATIONS.**

Our major partners are schools who would help to sensitize parent on the need to be involved in the project. school children’s parents will also pay the sum $0.3 per lunch pack for their children to benefit from this program. Wholesale suppliers from local farm markets also offer to sell at discounted prices if we purchase in large quantities.

**IMPLEMENTATION AND LOGISTICS**

The food will be prepared at a spot by different cooks who will follow our recipe strictly, then share the cooked food into large insulated containers to keep the meal fresh whose quality will not diminish by time in transit. The food will be delivered through our logistics personnel to various schools on time where servers will be stationed to receive and portion the food for school children to eat during break period.

**PERSONAL CASE STUDY.**

A study was conducted on five school children who are not given food to eat during break. We discovered that they have poor mood, concentration and performance in class. Then we introduced the nutritious lunch pack to them for two weeks, the result showed great improvement in their mood, concentration and a better academic performance.

SUMMARY

The School Children Nutritious Lunch Pack Project addresses severe food poverty among Nigerian schoolchildren, particularly in low-income areas like Mushin, Oshodi, and Itire-Ikate, Lagos. With 11 million Nigerian children affected, poor nutrition limits cognitive development, academic performance, and social interactions. The project aims to provide affordable, nutrient-rich lunch packs to children aged 6-13 to improve their health, education, and quality of life. The menu includes locally sourced ingredients such as cornmeal, rice, beans, vegetables, fish, and fruit juices, focusing on vital nutrients like proteins, vitamins, and omega-3 fatty acids. The project budget is $19,000, with $12,000 sought from UNICEF for equipment and salaries. Parents contribute $0.3 per lunch pack, and partnerships with schools and suppliers ensure cost-effectiveness. Research shows that nutrition significantly impacts cognitive function, including memory, concentration, and mood. A case study demonstrated marked improvements in children’s focus and academic performance after receiving these nutritious meals.