

# Assessment on the Canteen Services in All Central Schools of Catarman: Basis in the Design of a Model Canteen

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## Abstract

This study aimed to assess the food canteen services in all Central Schools of Catarman as a basis for designing a model canteen. Furthermore, it aimed to document the profile of the school canteen staff and experiences in handling food preparation and its source of capitalization. This study tried to find out the problems encountered by school canteens and determine the performance of school canteen services in terms of food standards, access to healthy and safe food, and regulation on the marketing of unhealthy foods. Survey questionnaires were distributed to the different central schools in Catarman. The gathered data were analyzed using multiple regression analysis and yielded these findings. School canteens in the central schools of Catarman are mostly managed and funded by the schools themselves. The financial support status of the school canteens is fairly attained same with the menu, food preparation practices, and facilities. Serious problems met are on facilities and food while management, services, and policy are oftentimes problems. On the performance of the canteen services, it was found out that the food standard is high quality. This implies that the food offered promotes healthy eating habits. On the other hand, access to healthful and safe food and the regulation of marketing of unhealthful foods is moderately achieved, thus, continued support for the implementation is needed.

**Keywords:** canteen services, public schools, food standards, healthy foods, model canteen.

## I. INTRODUCTION

Unhealthy food and drinks are the main risk factors that contribute to undernourished children worldwide. It is one big problem that the world is facing today with the perception of either food intake as a source of nutrients or ailments.

In an academic institution, the canteen is the main source of meals for learners and workers inside its premises. It is responsible for the healthy eating behaviors among students. Hence, it is expected that the food choices of the students could make a significant contribution to their health. Currently, most school canteens face common problems with students' eating habits. In particular, the kind of

food to be sold, expensive food items, small space, lack of kitchen facilities, and hygiene are just a few concerns of the students in the central schools of Catarman. This is the problem that the researcher addressed by designing an ideal school canteen that aims to eradicate malnutrition and serve as an extension of their dining area away from home through excellent operations.

With the increasing number of health problems nowadays, schools should be serious about promoting a healthy environment since students stay longer at school and buy food at school canteens. As a result, to support the health needs of the clientele of every school in the Philippines, the Department of Education issued

a memorandum through DepEd Order No. 13, series of 2017, also known as, Policy and Guidelines on Healthy Food and Beverages Choices in Schools (DepEd, 2017). The memo is in response to the mandate of Article II of Republic Act No. 6938 or the Act to Ordain a Cooperative Code of the Philippines (RA 6938, 1990).

Further, food categorizations must be considered to ensure that the food available in the school canteen is healthy. Specifically, the red category includes food that is not recommended in schools; the yellow category is food that can be sold once or twice a week; while the green category covers food that should always be available in the canteen. These food classifications are meticulously identified by DepEd and other expert health personnel to strongly promote students eating healthy meals. Indeed, exposing them to healthy food is essential in maintaining a sound mind and body that is fundamental in their academic endeavor. Imperatively, offices and schools should conduct local initiatives to support and promote the consumption of healthy food such as “Meatless Monday”, “Veggie Tuesday”, “Native Wednesday”, “Fibrous Thursday”, and “Fishy Friday”.

However, the UNICEF’s report on the State of the World’s Children: Children, Food and Nutrition, revealed that one in three Filipino children under five years old is malnourished - stunted, wasted, or overweight – while two-thirds are at risk of malnutrition and hidden hunger because of poor quality of their diets (Noorani, 2019). Additionally, the province of Northern Samar recorded a total of 4,498 malnourished children, representing 5.8 percent of all children (0 to 5 years old) in the province. This means that there are at least five malnourished children in every 100 children. This problem is because of the constraints of availability of healthy food and proper hygiene to the children that greatly affect their physical and mental growth.

Irader (2022) revealed in her study that students preferred on buying ready-made food for their mealtimes two to three times per week from

street food stalls and establishments because of a lack of time in preparing food. Thus, buying food outside the school canteen should be prohibited to avoid foodborne diseases usually caused by unsafe handling and preparation of food.

Likewise, Santos (2016) found that there is an existing problem in the operation of most school canteens, especially that the standards are overlooked. Issues on profit, transparency, accountability and the quality and quantity of food served are being affected. Accordingly, if the operations of the school canteen do not follow the national policy and guidelines set by the Department of Education, there is a high possibility that the quality of services may be affected. Students may not get the desired nutrients needed by their body, promoting a healthy environment will not be realized, and the quality of food might be neglected.

Therefore, the researcher considered this as a take-off point to identify school canteen measures that primarily aim to eradicate malnutrition among students and, most importantly, assess the school canteens of the Central Schools in Catarman to draw out evidence-based recommendations to improve its operations.

## II. METHODOLOGY

This study was conducted in the central schools of Catarman, Northern Samar, which included the Catarman 1 Central School including the (Catarman Special Education Center), Catarman II Central School, Catarman III (which is separated into Catarman National High School, and Generoso R. Frigillana Memorial School Central School), and Catarman IV Central School (which is also separated into Cawayan Elementary School and Cawayan National High School).

Catarman is the largest municipality in terms of land area and population in the province and serves as the provincial capital. The municipality has a land area of 464.43 square kilometers or 179.32 miles which constitutes 12.58 percent of Northern Samar’s total area.

Catarman I Central School is an elementary public school which is located at Barangay JP

Rizal, Catarman, Northern Samar. It has a total of two school canteens. Outside the school, premises are street vendors and small cafeterias where teachers buy food, particularly at lunch which is not available in the school canteen. Moreover, the Special Education Center is also a part of Central I and is commonly known as SPED Center. It is a public school located between the Department of Education Division of Northern Samar Office and Catarman II Central School. In like manner, Catarman II Central School is a monograde public elementary school which is located beside Catarman public market. The school has one school canteen. Beyond the school, premises are three sari-sari stores and private vendors where pupils usually buy and eat food. Catarman National High School and Generoso R. Frigillana Memorial School are both schools in Catarman III Central School and are located at Brgy. Dalakit, Catarman, Northern Samar. Catarman National High School offers junior and senior high school with two school canteens while Generoso R. Frigillana Memorial School is an elementary school. Catarman IV Central School or Cawayan Integrated School then was now separated into Cawayan Elementary School and Cawayan National High School under Republic Act No. 9989. The school is located in Barangay Cawayan, Catarman, and Northern Samar along the National Highway.

### ***Research Instrument***

The questionnaire used in gathering the data in the assessment of school canteen services in the Central Schools of Catarman was self-made and adopted. The researcher-made questionnaire comprised the school canteen performance in terms of food standards, access to healthy and safe food, and regulation on marketing of unhealthy foods. However, the instrument that was used in the status of the school in terms of administrative support, financial management, menu, food preparation and practices, and facilities and the problems met by the school canteen was an adopted questionnaire from the study of Ubane (2012). However, some of the

adopted instruments were modified to ensure that the survey questionnaire checklist was accurate to the objectives of this study. Further, some of the instruments were based on the policy and guidelines on healthy food and beverage choices in schools and DepEd offices. Cumulatively, the survey questionnaire was composed of four (4) parts and was patterned from Ubane (2012).

The first part determined the profile of the school canteen staff's age, sex, number of relevant training attended, educational attainment, and experience in food handling and preparation, source of capitalization, school canteen type, and time of operation. The second part focused on the status of the school canteens' administrative support, financial management, menu, food preparation practices, and kitchen facilities. The third part assessed the performance of the school canteens' food standards, access to healthy and safe food, and regulation on the marketing of unhealthy food. The instrument is self-constructed and was based on policy and guidelines on healthy food and beverage choices in DepEd schools and offices. The fourth part covered the problems met by school canteens.

Part of the research instrument was an interview guide which was used in gathering data for the problems met by the school canteen. The interviewees were the canteen staff who were personally interviewed by the researcher. The interviews were conducted in either Waray/Ninorte-Samarnon, Filipino, or English. The interviews were conducted on the weekdays of March.

Further, an observation checklist was used to complement the result of the school canteen performance.

### ***Data Gathering Procedure***

In gathering the data for this study, the following procedures were observed:

Before the official conduct of the study, the researcher secured first a copy of the official list of teachers and students in the Central Schools of Catarman. The final list of the respondents was determined randomly using Slovin's

formula. However, there was a complete enumeration of the school canteen staff. Then, a letter of permission was submitted to the Schools Division Superintendent asking for permission and approval to conduct the study.

To observe protocol and courtesy, a separate letter was given to the principals of the different Central Schools of Catarman asking permission for the participation of the students, parents, and school canteen staff in the study. After the approval of the request to conduct the study, the researcher personally distributed the instrument to the respondents of the four Central Schools in Catarman. The researcher distributed the instruments to the respondents of the Catarman I Central Schools, and the two schools of Catarman II Central Schools, Catarman III Central Schools, and Catarman IV Central Schools, respectively.

Moreover, the researcher conducted a series of observations on the operation of the school canteen as one of the bases in designing a model canteen. The observations were done during peak hours and are focused on how the school canteen staff prepares and serves the meal to the students and teachers and other non-teaching staff. Interviews with the parents, students, teachers, and school canteen staff are also conducted during the observation. No time limit was imposed to enable them to have sufficient time in answering the questions. After the data, gathering, the researcher personally retrieved all copies of the instruments. These were properly tabulated for easy reference in the administration of statistical treatment and analysis.

### III. RESULTS AND DISCUSSION

#### *Profile of the School Canteen Staff*

##### Age

Table 1 illustrated the profile of the canteen staff in terms of age. It shows that of the 13 canteen staff, two or 15.38 percent belong to the 21-30 age bracket; two or 15.38 percent are in the 31-40 range of age; five or 38.46 percent are in the 41-50 range of age, while there are four or 30.77 percent are in 50 years old and above. This means that majority of the canteen staff are

middle-aged adults and old adults. This conforms to the study by Darwin that the age diversity of the workforce does not significantly impact the performance of employees.

**Table 1.** *Profile of the School Canteen Staff in terms of Age*

Age	Frequency	Percent
21-30	2	15.38
31-40	2	15.38
41-50	5	38.46
above 50	4	30.77
<b>Total</b>	<b>13</b>	<b>100.00</b>

##### Sex

Table 2 shows the distribution of the canteen staff according to sex. It can be gleaned that 11 or 84.62 percent are female while two or 15.38 percent are male. This goes to say that majority of the canteen staff are female. This finds support in the study of Elsewed and Mohammed that females had a higher level of job satisfaction and commitment than males.

**Table 2.** *Profile of the School Canteen Staff in terms of Sex*

Sex	Frequency	Percent
Male	2	15.38
Female	11	84.62
<b>Total</b>	<b>13</b>	<b>100.00</b>

##### Relevant Trainings Attended

In Table 3, as regards relevant training attended, 12 or 92.31 percent of the canteen staff did not attend training related to canteen services or food preparation, while one or 7.69 percent attended related training for canteen services or food preparation. This means that most of the canteen staff did not undergo training which is required to ensure quality services for the clientele of the canteen.

This further negates the study of Ukandu and Ukperere that there is a need for training and development programs at fast food outlets as this will ensure better work performance and help the organization, to achieve its goals.

Consequently, this proves the contention of Roberts, et al that training can improve knowledge and behaviors, but knowledge alone does not always improve behaviors.

**Table 3.** Profile of the School Canteen Staff in terms of Number of Relevant Trainings Attended

Number of Relevant Trainings Attended	Frequency	Percent
None	12	92.31
more than 5	1	7.69
<b>Total</b>	<b>13</b>	<b>100.00</b>

#### Educational Attainment

In Table 4, regarding the educational attainment of the canteen staff, six or 46.15 percent are high school graduates, another six or 46.15 are college graduates and only one or 7.69 percent is a master's degree holder. This means that all canteen staff had educational background although some did not reach tertiary level. This supports the study of Ng and Feldman that educated employees, as a group, perform more effectively at task.

**Table 4.** Profile of the School Canteen Staff in terms of Educational Attainment

Highest Educational Attainment	Frequency	Percent
High school graduate	6	46.15
College graduate	6	46.15
MA graduate	1	7.69
<b>Total</b>	<b>13</b>	<b>100.00</b>

#### Experience in handing food preparation

In Table 5, in terms of the years of experience in food handling and preparation, three or 23.08 percent of the canteen staff had below one year experience, five or 38.46 percent has one year to three years of experience, one or 7.69 percent had four to six years of experience, and four or 30.77 percent had ten years and above experience. This shows that most of the school

canteen staff had been working in the school canteen for more than a year. This means that most of the school canteen staff do not work permanently in the school canteen. This contradicts the study of Hertsman et.al that three or more years work experience affected knowledge more than attitude in food safety practices.

**Table 5.** Profile of the School Canteen Staff in terms of Experience in Handling Food Preparation

Experience in Handling Food Preparation	Frequency	Percent
below 1yr	3	23.08
1 to 3	5	38.46
4 to 6	1	7.69
10 years above	4	30.77
<b>Total</b>	<b>13</b>	<b>100.00</b>

#### Profile of the School Canteen

##### Source of Capitalization

In Table 6, regarding capitalization, four or 80 percent of the canteens surveyed are funded by the school. While only one school canteen (20%) was funded by teachers. This means that most of school canteens in the central schools of Catarman are supported and financed by the school.

**Table 6.** Profile of the School Canteen in Terms of Capitalization

Capitalization	Frequency	Percent
Directly from school	4	80
From teachers	1	20
<b>Total</b>	<b>5</b>	<b>100.00</b>

##### School Canteen Type

In Table 7, in terms of canteen type, four or 80 percent are school-managed while only one or 20 percent is teacher-managed. This goes to show that most of the school canteens in the central schools were school-managed canteens. Thus, school canteens were directly managed

by the school and supervised by the school principal.

**Table 7.** Profile of the School Canteen in terms of Canteen Type

Canteen Type	Frequency	Percent
School-managed Canteen	4	80
Teachers-Managed canteen	1	20
<b>Total</b>	<b>5</b>	<b>100.00</b>

#### Time of Operation

In terms of the time of operation, Table 8 shows that all canteens in the central schools open before classes starts in the morning (6am to 7am) and closes after the class time in the afternoon. This suggests that school canteens offer meals for breakfast or any food available in the morning for the pupils/students. This supports Virginia's that primary school students are more likely to eat nutritional breakfast when given extra minutes to do so.

**Table 8.** Profile of the School Canteen in term of Time of Operation

Time of Operation	Frequency	Percent
Before class time	5	100
<b>Total</b>	<b>5</b>	<b>100.00</b>

#### Status of School Canteen Service

##### On Administrative Support

As revealed in Table 9, all the indicators of the status of school canteen services in the central schools of Catarman in terms of administrative support were "fairly attained". All variables under administrative support assessed by the canteen staff, students, teachers, and parents were fairly attained, however, it was only in the participation in decision making on the school canteen management and operation that the weighted mean excelled 3.08 but still interpreted as "fairly attained". These were followed by the allocation of the appropriate budget for the school canteen operation with a

mean of 3.00, and the provision of the needed resources like money, manpower, and materials with 2.92, and the design, implementation, and monitoring of the policies, procedures, and programs, to ensure that the operations are in compliance with set of the rules and regulations with 2.76. Nevertheless, the weighted mean for the whole administrative support in the canteen services in the central schools of Catarman was 2.88 indicating a "fairly attained". The results revealed that majority of the respondents considered the indicators under the support of the administration to be "fairly attained". This means that that the administrative support in all the central schools of Catarman was fairly visible. According to Reeve et.al, the Department of Education orders a relatively strong policy framework for the education sector of the Philippines. However, the lack of human and financial resources for implementation, planning and policy enforcement limits the impact of the policy on the healthiness of school food provision.

**Table 9.** Status of the School Canteen Services in the Central Schools of Catarman in terms of Administrative Support

Administrative Support	WM	Interpretation
Participation in decision-making on the school canteen management and operation.	3.08	Fairly attained
Allocation on the appropriate budget for the school canteen operation	3.00	Fairly attained
Provision of the needed resources like money, manpower, and materials.	2.92	Fairly attained
Hiring canteen personnel.	2.84	Fairly attained
The school canteen used for Home Economics laboratory.	2.84	Fairly attained

Helping solve the problems met.	2.84	Fairly attained
Supervising and monitoring of the operation of the school canteen.	2.84	Fairly attained
Promotion of the services of the school canteen to increase sales income.	2.84	Fairly attained
Opportunities for seminars/trainings concerning school canteen management and operation.	2.84	Fairly attained
Design, implementation, and monitoring of the policies, procedures, and programs to ensure that operations are in compliance with set of rules and regulations.	2.76	Fairly attained
<b>Mean</b>	<b>2.88</b>	<b>Fairly attained</b>

On Financial Management

As shown in Table 10, it was revealed that the support of the central schools of Catarman in terms of financial management was “highly attained” with a mean of 3.47.

The highest financial support was on the usability of updated cash register and the provision of cash receipts and disbursement books with a weighted mean of 3.73 “highly attained”. It was followed by the availability and issuance of official receipts from sales, regular submission of financial report, execution of purchase request and orders approved by those concerned, profit contributed by the canteen to the school, and the overall performance of the school canteen in terms of income and expenditure with 3.48 (“highly attained”), and the secured system of records that provides pertinent data on proper accounting with 3.40 (“highly attained”),

completion of approved policies in relation to sales on accounts 3.16 (“fairly attained”), the attainment of financial goals and objectives through budget plan 3.24 (“fairly attained”). It can be gleaned that the canteen staff is knowledgeable in the financial management of the day-to-day operation of the school canteen. The Managers or staff are required to have full financial knowledge to successfully meet the goals and objectives. This goes with the statement of Soloman that financial management is an integral part of the overall management rather than merely a staff activity concerned only with fund raising.

*Table 10. Status of the School Canteen Services in the Central Schools of Catarman in terms of Financial Management*

<b>Financial Management</b>	<b>WM</b>	<b>Interpretation</b>
Usability of updated cash register.	3.73	Highly attained
Provision of cash receipts and disbursement books.	3.73	Highly attained
Availability and issuance of official receipts from sales.	3.48	Highly attained
Regular submission of financial report	3.48	Highly attained
Execution of purchase request and orders approved by those concerned.	3.48	Highly attained
Profit contributed by the canteen to the school.	3.48	Highly attained
Overall performance of the school canteen in terms of income and expenditure	3.48	Highly attained
Secured system of records that provides pertinent data on proper accounting.	3.40	Highly attained
The attainment of	3.24	Fairly attained

financial goals and objectives through budget plan.

Completion of approved policies in relation to sales on accounts. 3.16 Fairly attained

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**Mean 3.47 Highly attained**

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#### On Menu

In Table 11, along with the menu, canteen services in the central schools of Catarman had a mean of 3.53 (“highly attained”). Accordingly, the indicators showed that the display or presentation of food in the canteens stood in all of its indicators with a weighted mean of 3.81 interpreted as “highly attained”. This was followed by the general prices of the menu with 3.73 (“highly attained”), nutritional adequacy of menu and the overall rating of the food and services with 3.65 (“highly attained”). However, the school canteens were relatively low in the aspects of accessibility in getting the food from the menu presented in the display area with weighted mean of 3.16 (“fairly attained”), the color, flavor, texture, shape, and size and proper temperature of menu with 3.24 (“fairly attained”), and the prices of food with 3.40 (“highly attained”). This means that the prepared menus of the central schools are in accordance to the guidelines in canteen services. This confirms the finding of McBride’s study that those students with access to healthy canteen menus displayed more positive attitudes towards good nutrition.

**Table 11.** Status of the School Canteen Services in the Central Schools of Catarman in terms of Menu

Menu	WM	Interpretation
Display or presentation of our food	3.81	Highly attained
General prices of our menu	3.73	Highly attained
Nutritional adequacy of our	3.65	Highly attained

menu

Overall rating of the food and services in our canteen 3.65 Highly attained

Quality, variety, and taste of food 3.57 Highly attained

Prices and choices of food 3.40 Highly attained

Color, flavor, texture, shape and size, and proper temperature of our menu 3.24 Fairly attained

Accessibility in getting the food from the menu presented in the display area 3.16 Fairly attained

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**Mean 3.53 Highly attained**

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#### On Food Preparation Practices

In Table 12, as to the food preparation practices of the canteen services, keeping the food away from the flies during preparations was highly attained with a weighted mean of 3.57. This was followed by the purchase of raw materials and ingredients by the manager or cook with 3.48 (“highly attained”), and the preparation or purchase of the right ingredients and qualities needed for the menu by the cook or manager with 3.40 (“highly attained”). The canteen service was low on storing food properly with 2.67 (“fairly attained”), serving the food according to its size, utensils and garnishing needed for the menu with 2.84 or (“fairly attained”) and slicing of raw materials or ingredients into desired slices with 3.16 (“fairly attained”). With an overall mean of 3.19, the indicators of the status of canteen services in the central schools in terms of food preparation practices was assessed to “fairly attained”. This agrees on the study of Laura that factors with impacts on the ability to prepare food safely, includes time pressure, structural environments, equipment, and resources.



**Table 12.** Status of the School Canteen Services in the Central Schools of Catarman in terms of Food Preparation Practices

<b>Food Preparation Practices</b>	<b>WM</b>	<b>Interpretation</b>
Keeping the food away from flies during preparations.	3.57	Highly attained
Purchase of raw materials and ingredients by the manager/cook/marketer.	3.48	Highly attained
Preparation or purchase of the right ingredients and qualities needed for the menu by the cook/manager	3.40	Highly attained
Washing of raw materials such as fruits, vegetable, fish and meat before further handling.	3.32	Fairly attained
Apportioning, weighing, and measuring of ingredients and quantities needed for the menu by the cook/assistant cook/ helper	3.24	Fairly attained
Serving food promptly.	3.24	Fairly attained
Slicing of raw materials/ingredients into desired slices.	3.16	Fairly attained
Preparation of the food according to the planned menu by the cook.	3.00	Fairly attained
Serving the food according to its size, utensils and garnishing needed for the menu.	2.84	Fairly attained
Storing food properly.	2.67	Fairly attained
<b>Mean</b>	<b>3.19</b>	<b>Fairly attained</b>

### On Kitchen Facilities

Table 13 presents the status of the canteen services in the central schools of Catarman in terms of facilities. Statistical data show that in terms of physical facilities, the sufficiency of tools, utensils, and equipment for food preparation and services was “highly attained” with a weighted mean of 3.65 while adequacy in the number of tools, utensils, and equipment for food preparation and services has a weighted mean of 2.59 or “not attained”.

On the sanitary design of the facilities, the provision of hand washing facilities in the central schools of Catarman was “highly attained” with a weighted mean of 3.73, followed by the availability of stock room for extra chairs, tables, and other dining facilities and the standard kitchen lay-out showing proper location and set-up of equipment with a weighted mean of 3.48 or “highly attained”. On the other hand, the adequacy and quality of water supply available to the school canteen

had a weighted mean of 3.24 or “fairly attained.”

In terms of dining and kitchen facilities, the provision of enough number of plates, glasses, fork and spoon had a weighted mean of 3.73 or “highly attained”, followed by the availability of modern technological and industrial equipment in the kitchen and dining area with a weighted mean of 3.57 “highly attained” while it is low on the availability of spoon and fork sanitizer with a weighted mean of 3.16 or “fairly attained”.

It can be gleaned that respondents gave more emphasis on dining and kitchen facilities, sanitary design of facilities, and physical facilities with the means of 3.48 (“highly attained”), 3.47 (“highly attained”) and 3.65 (“fairly attained”), respectively. This suggests that that the canteen services in the central schools of Catarman lacked physical facilities particularly on the tools, utensils, and equipment for food preparation services. Moreover, the adequacy and quality of water

supply available to the school canteen and the availability of spoon and fork sanitizer are not enough. This contradicts the statement of Rennie that the availability of equipment, physical layout for the operations, and physical infrastructure for hand washing can support to improve safe food handling practices in the food establishment.

Generally, the status of the school canteen services in the central schools of Catarman had

a grand mean of 3.26 or “fairly attained”. Moreover, among its indicators, menu excelled with a mean of 3.53 or “highly attained”, followed by facilities, financial management with a weighted mean of 3.48 and 3.47 or “highly attained”, respectively. The food preparation and practices and administrative support with weighted means of 3.19 and 2.88 had “fairly attained” status.

**Table 13.** Status of the School Canteen Services in the Central Schools of Catarman in terms of Kitchen Facilities

<b>Facilities</b>	<b>WM</b>	<b>Interpretation</b>
<b>Physical Facilities</b>		
Sufficiency of tools, utensils and equipment for food preparation and services.	3.65	Highly attained
Standard design and layout of the school canteen building	2.92	Fairly attained
Cleanliness of the entire school canteen	2.76	Fairly attained
Availability of sanitizer for tools, utensils, and equipment.	2.67	Fairly attained
Adequacy in the number of tools, utensils, and equipment for food preparation and service.	2.59	Not attained
<b>Mean</b>	<b>2.92</b>	<b>Fairly attained</b>
<b>Sanitary Design of Facilities</b>		
Provision of hand washing facilities	3.73	Highly attained
Availability of stock room for extra chairs, tables, and other dining facilities.	3.48	Highly attained
Standard kitchen lay-out showing proper location and set-up of equipment.	3.48	Highly attained
Provision of trash can for waste disposal.	3.40	Highly attained
Adequacy and quality of water supply available to the school canteen.	3.24	Fairly attained
<b>Mean</b>	<b>3.47</b>	<b>Highly attained</b>
<b>Dining and Kitchen Facilities</b>		
Provision of enough number of plates, glasses, fork and spoon.	3.73	Highly attained
Availability of modern technological and industrial equipment in the kitchen and dining area.	3.57	Highly attained
Provision of enough number of dining chairs and tables.	3.48	Highly attained
Provision of enough number and size of utensils and equipment necessary for quantity production.	3.48	Highly attained
Availability of spoon and fork sanitizer	3.16	Fairly attained
<b>Mean</b>	<b>3.48</b>	<b>Highly attained</b>

**Grand Mean****3.26 Fairly attained**On the Problems Met

Table 14 presents the problems faced along the school canteen services in the central schools of Catarman.

On the management of the school canteen, the most common problem met by the central schools of Catarman was on allowing food vendors within the school premises with a weighted mean of 4.30 (“a serious problem”) while unpaid debt of the employees with a weighted mean of 3.10 (“a problem”) was not given more attention.

In relation to equipment/facilities, the common problem encountered by the canteen services in the central schools of Catarman was the lack of cooking tools, utensils and equipment needed in food preparation and services, and the absence of high technological equipment to be used for fast and vast production and services with a weight mean of 4.50 (“a serious problem”) but the insufficient number of tables and chairs, lightings and ventilation with a weighted mean of 3.70 (“oftentimes a problem”).

On services, the school canteen, as home economics laboratory, and the attention given by the staff to the customer, were “serious

problems” while the orientation of students, teachers and non-teaching staff about the real purpose of school canteen operation is “oftentimes a problem”.

The food, choices of food and taste of food was assessed as a “serious problem” while prices of the food is “oftentimes a problem”.

In the area of policy, depreciation of cost of facilities and other equipment used for school canteen services was a “serious problem” while business permit, sanitary permit and health certificate of each personnel was “oftentimes a problem”.

Generally, the problems met in the canteen services has a grand mean of 4.02 or “oftentimes a problem”. However, the area on food appears to be a serious problem with its mean of 4.27, the highest among the indicators. In like manner, equipment or facilities was also “a serious problem” with a mean of 4.20. The data show that school canteen do not have enough facilities or equipment that support its day to day operation. Policy, management, and services was assessed as “oftentimes a problem” with a mean of 4.13, 3.70, and 3.60, respectively.

**Table 14. On Problems Met**

<b>Management</b>	<b>WM</b>	<b>Interpretation</b>
Allowing food vendors within the school premises	4.30	A serious problem
Delay in processing the budget	3.70	Oftentimes a problem
Unpaid debt of employees	3.10	A problem
<b>Mean</b>	<b>3.70</b>	<b>Oftentimes a problem</b>
<b>Equipment/Facilities</b>		
Lack of cooking tools, utensils and equipment needed in food preparation and service	4.50	A serious problem
Absence of high technological equipment to be used for fast and vast food production and services	4.40	A serious problem
Insufficient number of chairs, tables, lightings, and ventilation	3.70	Oftentimes a problem
<b>Mean</b>	<b>4.20</b>	<b>A serious problem</b>

<b>Services</b>	<b>WM</b>	<b>Interpretation</b>
School canteen as a Home Economics laboratory	4.50	A serious problem
Attention given by the staff to the customer	4.20	A serious problem
Orientation of students, teachers and non-teaching staff about the real purpose of school canteen operation	3.70	Oftentimes a problem
<b>Mean</b>	<b>4.13</b>	<b>Oftentimes a problem</b>
<b>Foods</b>	<b>WM</b>	<b>Interpretation</b>
Choices of food (limited choices)	4.40	A serious problem
Taste of food	4.30	A serious problem
Prices of food	4.10	Oftentimes a problem
<b>Mean</b>	<b>4.27</b>	<b>A serious problem</b>
<b>Policy</b>	<b>WM</b>	<b>Interpretation</b>
Depreciation of cost of facilities and other equipment used for school canteen services	4.33	A serious problem
Sanitary permit and health certificate of each personnel	3.67	Oftentimes a problem
Business permit	3.40	Oftentimes a problem
<b>Mean</b>	<b>3.80</b>	<b>Oftentimes a problem</b>
<b>Grand Mean</b>	<b>4.02</b>	<b>Oftentimes a problem</b>

### On the Performance of the School Canteen Services

#### On Food Standard

Table 15 presents the findings of the respondents regarding the school canteen performance in terms of food standard. It can be gleaned that respondents assessed food standard as “a high quality or standard” with a mean of 3.60. Among the indicators, the spare use of oil in food served excelled, with a weighted mean of 4.70 or “a very high quality or standard”, followed by the prohibition of selling foods and beverages high in fat or sugar with a weighted mean of 3.90 (“high quality or standard”). However, it was low on the categorization of non-packed foods as to those that should be always served, served carefully and not recommended with a weighted mean of 3.10 (“average quality or standard”). The result

revealed that school canteens follow the food standards set by the Department of Education.

**Table 15.** *On the Performance of the School Canteen Services in the Central Schools of Catarman in terms of Food standard*

<b>Food Standard</b>	<b>WM</b>	<b>Interpretation</b>
Spare use of oil in foods served	4.70	A very high quality or standard
Prohibition of selling foods and beverages high in fat or sugar	3.90	A high quality or standard
Presence of nutrition facts on food products label which provide information about the nutrition content of a food or drink.	3.90	A high quality or standard

Development of own healthful menu ensuring that the foods and drinks offered are nutritious and affordable.	3.80	A high quality or standard
Use of natural herbs and spices such as garlic, onion, pepper and others instead of artificial flavors.	3.60	A high quality or standard
Categorization of foods on which should be consumed more or less	3.50	A high quality or standard
Limiting of foods naturally high in sodium or salt (processed foods and canned goods)	3.30	Average quality or standard
Display of Pinggang Pinoy, a plate-based food guide of a familiar image associated with eating that provides immediate visual cues about portion size on a per-meal basis, to the customers.	3.20	Average quality or standard
Categorization of non-packaged foods as to those that should be always served, served carefully and not recommended.	3.10	Average quality or standard
Availability of foods and beverages that promote energy balance to maintain a healthy weight	3.00	Average quality or standard
<b>Mean</b>	<b>3.60</b>	<b>A high quality or standard</b>

On the Access to a Healthful and Safe Foods

Table 16 shows the result of the respondents in terms of the access to healthful and safe foods. The data shows that the provision of a well-ventilated, well-lighted, safe and clean environment for eating garnered the highest mean of 3.80 or “a high quality or standard”. While the display of post signage that only healthy food and drinks should be served in the premises with a mean of 2.40 or not in good quality or standard was the lowest. In general, the access to a healthful and safe food is “average quality or standard” with a mean of 3.19. This is substantiated in the findings of Evans et al that the most important barriers influencing healthful shopping behaviors include high price of healthful food, inadequate geographical access to healthful food, poor quality of available healthful food, and lack of overall quality of the approximate retail stores.

*Table 16. Performance of the School Canteen Services in the Central Schools of Catarman in terms of Access to Healthful and Safe Foods*

<b>Access to Healthful and Safe Foods</b>	<b>WM</b>	<b>Interpretation</b>
Provision of a well-ventilated, well-lighted, safe and clean environment for eating	3.80	A high quality or standard
Serving of soy sauce, fish sauce and other locally available condiments only upon request	3.60	A high quality or standard
Provision of School canteen on facilities for hand washing	3.60	A high quality or standard
Advice of school or school canteen to parents and guardians to provide healthful foods (baon)	3.50	A high quality or standard
Provision of school canteen on clean	3.50	A high quality or standard

plates, glasses and eating utensils		
Ensuring proper and safe handling of foods	2.40	Not in good quality or standard
Practice of school canteen on proper waste segregation and disposal	3.30	Average quality or standard
Conduct of local initiative to support and promote consumption of healthful food.	3.10	Average quality or standard
Availability of safe drinking water	2.70	Average quality or standard
Display of post signage that only healthy food and drinks should be served in the premises	2.40	Not in good quality or standard
<b>Mean</b>	<b>3.19</b>	<b>Average quality or standard</b>

#### On the Regulation on Marketing of Unhealthful Food

As revealed in Table 17, the school canteen performance in terms of regulation on marketing of unhealthful food was assessed as “average quality or standard” with a mean of 3.17. Among the variables, giving of price discount or vouchers as educational rewards regardless of type of food to be bought excelled with a weighted mean of 4.10 (“a high quality or standard”). However, variable with low assessment rating was the prohibition of using school activities where children gather in buying or unhealthful foods, and the changing of refrigerators/other equipment/facilities with logo or brand name of unhealthful foods and beverages with the same weighted mean of 2.50 (“not in good quality or standard”).

Overall, the school canteen performance in the central schools of Catarman had a grand mean

of 3.32 or “average quality or standard”. This shows that food standard had the highest mean of 3.60 or “a high quality or standard” under school canteen performance. Access to healthful food and regulation on marketing of unhealthful food garnered the means of 3.19 and 3.17, respectively (“average quality performance”).

*Table 17. Performance of the School Canteen Services in the Central Schools of Catarman in terms of Regulation on Marketing of Unhealthful Foods*

<b>Regulation on Marketing of Unhealthful Foods</b>	<b>WM</b>	<b>Interpretation</b>
Giving of price discount or vouchers as educational rewards regardless of type of food to be bought.	4.10	A high quality or standard
Purchase of school canteen on food and beverage from manufacturers that meet the criteria of healthy and quality foods.	3.70	A high quality or standard
Survey on parents on the foods that they want to be and not-be sold in the canteen.	3.70	A high quality or standard
Adherence of school canteen to locally legislated rules on food safety.	3.60	A high quality or standard
Typical advertisement of sugary drinks in school through branded vending machines, branded refrigerators and ice boxes, signage in school canteens, corridors and sports facilities, and on sun	3.50	A high quality or standard

			<b>Grand Mean</b>	<b>Average quality or standard</b>
umbrellas and tents.				
Prohibition of using cartoon characters to promote junk foods and soft drinks.	2.90	Average quality or standard		
Conduct of activities to orient students and their parents on promoting consumption of healthy foods and beverages.	2.60	Average quality or standard		
Giving of free samples of unhealthful categorized foods and drinks such as powdered juice, fish balls, French fries, instant noodles.	2.60	Average quality or standard		
Prohibition of using school activities where children gather in the buying of unhealthful foods.	2.50	Not in good quality or standard		
Changing refrigerators/ other equipment/facilities with logo or brand name of unhealthful foods and beverages.	2.50	Not in good quality or standard		
<b>Mean</b>	<b>3.17</b>	<b>Average quality or standard</b>		

***Test of Significant Relationship in the Profile of the School Canteen Staff and the Performance of School Canteen Services***

Table 18 presents the relationship between the profile of the school canteen staff and the performance of the school canteen services particularly on the food standard. The table shows that age has a p-value of 0.388, sex has 0.392, relevant trainings attended has of 0.490 and experience in handling food preparation has 0.771 all had significance values of less than 0.05. Thus, this indicates that food standard is influenced by the profile of the canteen staff.

Meanwhile, the profile of the canteen staff in terms of age has a p-value of 0.308, educational attainment with 0.423, and experience in handling food preparation with a p-value of 0.498 have significant relationships to the regulation on marketing of unhealthy food. This can be implied that the profile of the canteen staff in terms of age, educational attainment, and experience in handling food preparation has something to do with the regulation on marketing of unhealthy food. This means that canteen staffs' knowledge and experience in food productions has a great impact on the purchasing and advertising of the healthy or food.

On the other hand, the canteen staff's profile has no significant relationship to the performance of the school canteen in terms of the access of healthy and safe food.

**Table 18.** *Test of Significant Relationship in the Profile of the School Canteen Staff and the Performance of School Canteen Services*

<b>Profile</b>	<b>Parameter</b>	<b>Food Standard</b>	<b>Access to Healthy and Safe Food</b>	<b>Regulation on Marketing of Unhealthy food</b>
<b>School Canteen Staff</b>				
	Pearson r	<b>0.388</b>	0.091	<b>0.308</b>
Age	Sig.	<b>0.000</b>	0.126	<b>0.001</b>
	Interpretation	<b>Significant</b>	NS	<b>Significant</b>

	Pearson r	<b>0.392</b>	0.022	0.022
Sex	Sig.	<b>0.011</b>	0.338	0.590
	Interpretation	<b>Significant</b>	NS	NS
Relevant Trainings	Pearson r	<b>0.490</b>	0.052	0.099
	Sig.	<b>0.002</b>	0.423	0.523
	Interpretation	<b>Significant</b>	NS	NS
Educational Attainment	Pearson r	0.033	0.118	<b>0.423</b>
	Sig.	0.562	0.885	<b>0.010</b>
	Interpretation	NS	NS	<b>Significant</b>
Experience in handling food preparation	Pearson r	<b>0.771</b>	0.111	<b>0.498</b>
	Sig.	<b>0.006</b>	0.093	<b>0.032</b>
	Interpretation	<b>Significant</b>	NS	<b>Significant</b>

***Test of Significant Relationship in the Profile of the School Canteen and the Performance of School Canteen Services***

Table 19 shows that the profile of the school canteen in terms of source of capitalization, school canteen type and time of operation has no significant relationship to the performance of

the school canteen services. This means that whether a school canteen is owned or operated by the school or run by teachers or a laboratory canteen it will not affect the performance of the operation of the canteens in the central schools of Catarman.

**Table 19.** Test of Significant Relationship in the Profile of the School Canteen and the Performance of School Canteen Services

School Canteen	Parameter	Food Standard	Access to Healthy and Safe Food	Regulation on Marketing of Unhealthy food
Source of Capitalization	Pearson r	<b>0.104</b>	0.118	0.022
	Sig.	<b>0.237</b>	0.082	0.250
	Interpretation	NS	NS	NS
School Canteen type	Pearson r	0.109	0.094	0.098
	Sig.	0.573	0.311	0.446
	Interpretation	NS	NS	NS
Time of operation	Pearson r	0.109	0.113	0.103
	Sig.	0.573	0.083	0.088
	Interpretation	NS	NS	NS

***Test of Significant Relationship in the Status of the Canteen Services and the Performance of School Canteen Services***

Table 20 presents the relationship of the status of the school canteen to the performance of the school canteen services. It shows that administrative support has a p-value of 0.368, financial management has 0.553, menu has 0.381, food preparation practices 0.099, and kitchen facilities has 0.488 and has a significant

value of less than 0.05 thus, the null hypothesis of the status of school canteen is significantly related to the performance of the school canteen in terms of food standard.

However, the status of the school canteen in terms of administrative support has of 0.012, financial management has 0.101, menu has 0.111, food preparation practices, has 0.140, and kitchen facilities has 0.035-not significantly



related to the performance of the school canteen services.

In terms of the regulation on marketing of unhealthy food, the administrative support has a p-value of 0.091, financial management has of 0.101, menu has 0.099, food preparation

practices, a p-value of 0.022, and kitchen facilities has 0.053- do not show a significant relationship to the performance of the school canteen services.

**Table 20.** *Test of Significant Relationship in the Status of the School Canteen and the Performance of School Canteen Services*

Status of school canteen	Parameter	Food standard	Access to healthy and safe food	Regulation on marketing of unhealthy food
Administrative support	Pearson r	<b>0.368</b>	0.012	0.091
	Sig.	<b>0.003</b>	0.475	0.590
	Interpretation	<b>Significant</b>	NS	NS
Financial management	Pearson r	<b>0.553</b>	0.101	0.101
	Sig.	<b>0.001</b>	0.360	0.375
	Interpretation	<b>Significant</b>	NS	NS
Menu	Pearson r	<b>0.381</b>	0.111	0.099
	Sig.	<b>0.002</b>	0.604	0.323
	Interpretation	<b>Significant</b>	NS	NS
Food preparation practices	Pearson r	0.099	0.140	0.022
	Sig.	0.116	0.093	0.237
	Interpretation	NS	NS	NS
Kitchen facilities	Pearson r	<b>0.488</b>	0.035	0.053
	Sig.	<b>0.009</b>	0.449	0.555
	Interpretation	<b>Significant</b>	NS	NS

**Table 21.** *Test of Significant Relationship in the Problems Encountered and the Performance of School Canteen Services*

Table 21 presents the relationship between the problems encountered and the performance of the school canteen services. As rated by the

respondents, the table shows that problems encountered with a p-value of -0.592 has a significant relationship to the performance of school canteen. This implies that problems on the management of the school canteen greatly affect food production.

**Table 21.** *Test of Significant Relationship in the Problems Encountered and the Performance of School Canteen Services*

Problems Encountered	Parameter	Food standard	Access to healthy and safe food	Regulation on marketing of unhealthy food
Problems Encountered	Pearson r	<b>-0.592</b>	-0.013	0.108
	Sig.	<b>0.000</b>	0.067	0.073
	Interpretation	<b>Significant</b>	NS	NS

**CANTEEN MODEL IN THE CENTRAL SCHOOLS OF CATARMAN, NORTHERN SAMAR**

**Rationale**

The school canteen is the best place to promote a healthy eating behavior. Its positive environment attracts positive outlook towards a healthy eating pattern.

Further, wherever the school is located, school canteen services must be uniform in all ways so that students will get the same services they

need inside the school campus. Thus, this school canteen model is designed to make sure that all canteens in Northern Samar are following the policies and guidelines in operating a school canteen. The content of this canteen model design is based on the findings of the study on the assessment of canteen services in the central schools of Catarman, Northern Samar.

Component	Description
<b>Structure</b>	<ul style="list-style-type: none"> <li>- Can accommodate all students.</li> <li>- Floors shall be smooth, easily cleaned, and in good condition.</li> <li>- Fully ventilated.</li> <li>- Well-lighted.</li> </ul>
<b>Facilities</b>	<ul style="list-style-type: none"> <li>- Cooking tools and equipment should be made available for everyday use.</li> <li>- Availability of hand washing facilities in every school (DepEd Order No. 56 series of 2009).</li> <li>- Tables and chairs are readily available for students' use.</li> <li>- Floor in the dining area should easily be cleaned.</li> <li>- Facilities like cooking facilities, dining facilities, and cleaning facilities should be separated from food preparation area.</li> <li>- Sanitizer for tools and utensils should be made available.</li> </ul>
<b>Customers</b>	<p><b>Pupils/Students</b></p> <ul style="list-style-type: none"> <li>- The students, as the main and important clients of the school canteen should be provided with nutritious and affordable meal.</li> <li>- They are the reflection of the school canteen which means that a healthy school canteen accommodates healthy students.</li> </ul> <p><b>School Personnel</b></p> <ul style="list-style-type: none"> <li>- Teaching and non-teaching staff who are regular buyers of meals should also promote and help the canteen to become at its best.</li> </ul> <p><b>Parents</b></p> <ul style="list-style-type: none"> <li>- Supports the needs of the students especially in terms of food intake.</li> </ul>
<b>Administration</b>	<ul style="list-style-type: none"> <li>- Ensure that the policy are being followed regularly.</li> <li>- The school administrator needs to monitor and evaluate the canteen policy.</li> <li>- Supports school food nutrition learning program.</li> <li>- Assess in the operation though feedback from the students.</li> <li>- Links the canteen with the community.</li> <li>- Provides food supplier.</li> <li>- Promotes a healthy school canteen but still financially viable.</li> <li>- Employs canteen staff.</li> <li>- Implements systems to enforce queuing and good behaviour in the canteen.</li> <li>- Conducts activities to orient students and parents on healthy food and</li> </ul>

	beverages consumptions.
<b>Staff</b>	<p><b>For School Canteen Manager</b></p> <ul style="list-style-type: none"> <li>- He or she is a Home Economics teacher and has a background on management.</li> <li>- Handling EPP/TLE/TVE students.</li> <li>- In service for not less than three years.</li> </ul> <p><b>Duties and Responsibility</b></p> <ul style="list-style-type: none"> <li>- Manages the school canteen and its staff.</li> <li>- Safeguards the quality of meals.</li> <li>- Provides services to students in a professional manner.</li> <li>- Develops positive relationship with the canteen staff to ensure that the canteen operates smoothly.</li> <li>- Makes sure that the canteen staff complies with the needed requirements of food service.</li> <li>- Guides and facilitates the staff in working efficiently.</li> <li>- Initiates trainings and seminars for canteen staff.</li> <li>- Helps EPP/TLE/TVE students in a real life scenario of food service.</li> <li>- Secures the finances.</li> <li>- Secures the sales of the canteen.</li> </ul> <p><b>For Canteen Staff</b></p> <ul style="list-style-type: none"> <li>- He or she is in a legal age, either a high school or college graduate.</li> <li>- Knowledgeable in food safety.</li> <li>- With background and experience in food preparation.</li> <li>- Physically fit.</li> </ul> <p><b>Duties and Responsibilities</b></p> <ul style="list-style-type: none"> <li>- Do all tasks religiously.</li> <li>- Develop healthy eating environment.</li> <li>- Make sure that food sold is healthy and with quality.</li> <li>- Uphold the policy and guidelines on healthy food beverage choices in schools and in DepEd offices.</li> <li>- Attend trainings and seminars on food safety and food preparation.</li> <li>- Friendly to the customers.</li> </ul>
<b>Menu</b>	<ul style="list-style-type: none"> <li>- All food items must be nutritious and affordable.</li> <li>- Food should be made from fresh and organic ingredients.</li> <li>- Food under green category should not be repetitive</li> <li>- Balanced meal should be served every day.</li> <li>- A menu board should be displayed.</li> <li>- Food displayed should be in accordance with the policy and guidelines of the Department of Education.</li> </ul>
<b>Operation</b>	<ul style="list-style-type: none"> <li>- Operates before and during the regular class hour.</li> <li>- Authorized vendors should only be allowed inside the school campus with sanitary permits.</li> <li>- Promote and market the canteen.</li> </ul>

	<ul style="list-style-type: none"> <li>- Advertise new meal.</li> <li>- Accommodate all students.</li> <li>- Link the canteen with the community.</li> <li>- Promote a healthy eating school canteen policy.</li> <li>- Promote “Clean as You Go” policy.</li> </ul>
<b>Policy</b>	<p><b>For School Canteen</b></p> <ul style="list-style-type: none"> <li>- Policy and guidelines on healthy food beverage choices in schools and in DepEd offices.</li> <li>- School canteen should have a business permit.</li> <li>- Sanitary permit.</li> </ul> <p><b>For School Canteen Staff</b></p> <ul style="list-style-type: none"> <li>- Health certificate.</li> </ul>
<b>Awards</b>	<p><b>Canteen Accreditation Program</b></p> <ul style="list-style-type: none"> <li>- A program where school administrators conduct a yearly evaluation on the services, environment, and products of the canteen to make sure that guidelines and policies are seriously followed and managed. Further, this also serves as a motivation to the school canteen staff/manager/ to continually improve the services.</li> <li>- The school canteen who performs best will be awarded by the school administrators.</li> <li>- Top 3 school canteens will be ranked as gold, silver, and bronze.</li> </ul>

#### IV. CONCLUSION

Most of the school canteen staff are in legal age and are females. Most of them are high school and college graduates. With more than a year of working in the school canteen, only one of the staff attended a training related to food handling and preparation. Thus, school canteen staff are not fully equipped and informed in terms of food handling practices and food service operation. Moreover, school canteens in the central schools of Catarman are mostly managed and funded by the school. Consequently, the operation is under the supervision of the school principal which implies that all decisions and plans on the day to day operation of the school canteens are directly from the school principal.

The present status of the school canteen services in the central schools of Catarman is moderately managed in terms of administrative support. However, there is still a need for the school administration to give more support to the canteen services especially on the

implementation and monitoring of the policies to make sure that the operation are in compliance with the set of regulations. Further, financial support is substantially managed, menu is substantially high, food preparation practices are moderately managed, and facilities are substantially managed. This implies that the status of the school canteen needs support from the administration to continually give quality services to the students.

The most common problems met are on facilities and foods. Lack of kitchen facilities and equipment hinders to produce different choices of food needed by the students, thus, limited food displayed in the canteen becomes a serious problem in its everyday operation. Accordingly, limited choices of food displayed in the canteen means inadequate nutrients intake by the students. This implies that a limited food choices will limit the growth of the students.

On the performance of the canteen services, it can be viewed that food standard is greatly achieved. This means that food sold are

commonly found on the green category set by the Department of Education. Further, this implies that food offered promotes healthy eating habit. On the other hand, access to healthful and safe food and the regulation on marketing of unhealthful foods is moderately achieved, thus, a continued support on the implementation is needed. In general, the performance of the school canteen services in the central schools of Catarman in terms of food standard, access to healthy and safe food, and the regulation on unhealthy food is considered “average”.

Further, there was a significant relationship between the profile of the school canteen staff in terms of age, sex, relevant trainings attended, and experience in handling food preparation to the performance of the school canteen particularly on the food standard. This implies that quality of food produced or prepared is influenced by the profile of the staff. In addition, trainings and seminars related to food service have a big help on the performance of the staff. If they are not exposed to trainings and seminars related to food preparation and operation, they will not be informed and equipped with the new ways of food operation. Thus, this affect their work performance.

On the relationship between the canteen profile and the performance of the school canteen, it shows that the type of school canteen, the source of capitalization, and time of operation does not affect the performance of the school canteen services.

On the status of the school canteen to the performance of the school canteen services, it shows that administrative support, financial management, menu, food preparation practices and kitchen facilities is related to the food standard. This implies that if the management or the school administration supports the canteen operation in any way possible, the quality of service will be met. Moreover, the food standard which is important to the pupils and as per instruction of the Department of Education will be achieved.

Moreover, there are significant relationship on how the respondents assessed the problems

encountered to the performance of the school canteen services in terms of food standard. This implies that since the school administration lacks support on the management of the canteen, the food standard is affected.

## RECOMMENDATIONS

After the analysis of the findings, the following recommendations are forwarded:

1. The school should assign a school canteen teacher who is a graduate of home economics and has the ability to manage both the canteen operation and the staff. Moreover, canteen staff should be exposed to formal trainings, seminars and conferences related to food services so that they will be equipped with the skills needed in food preparation.
2. A frequent monitoring of the school administrator to the canteen services is recommended to ensure that the guidelines in operating the school canteen is religiously followed by the staff. In addition, a weekly or monthly evaluation of the food sold should be done by the principal or school health personnel to have them updated on the day to day operation to ensure that meals served are compliant to the policy and guidelines of the Department of Education.
3. Provide an ideal space where pupils can eat and enjoy their food, thus, tables and chairs with free water should be made available for students' use. Moreover, kitchen facilities and equipment should be readily accessible for the canteen operation particularly for mass production.
4. Food vendors should not be allowed inside the school campus unless permitted by the school and should wear an ID for the safety of the students. Small booth outside the school canteen selling food should also be evaluated by the school or health personnel.

5. Link the school canteen with the community, to food supplier, business establishments, and other organizations to have an easy access to the products or food needed in the operation of school canteen.
6. Further studies on the operation of school canteens especially on the bigger schools must be conducted to give more realistic analyses of situations of school canteens.

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