

The Effect of Breakfast on Academic Performance among Grade 10 Students in Lapgap National High School

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Abstract

This study examined the morning meal habits of Grade 10 students at Lapgap National High School and their relationship with learning focus and academic performance. Anchored on the premise that adequate nutrition supports cognitive functioning, classroom participation, and academic outcomes, the study used a correlational research design. The respondents were 33 Grade 10 students enrolled during the academic year 2025–2026, selected through simple random sampling using a lottery method. Data were gathered through a structured questionnaire adapted and modified from validated sources, particularly validated constructs. The instrument included a Frequency and Preference Checklist and a 5-point Likert scale. Descriptive statistics and correlational analysis using Pearson's correlation coefficient or Spearman's rank correlation, as appropriate, were applied. Findings showed that students generally demonstrated positive morning meal habits, with an overall mean of 3.97, interpreted as "To a Great Extent." Factors influencing breakfast consumption obtained an overall mean of 2.44, interpreted as "To a Little Extent," while parental or guardian encouragement emerged as the strongest influence. Students also showed a high level of learning focus, with an overall mean of 3.41, interpreted as "To a Great Extent." The study reported a statistically significant Pearson correlation coefficient of -0.985, interpreted as a very high relationship between morning meal habits and learning focus. The study concludes that consistent and nutritious breakfast consumption, supported by family involvement, contributes to students' concentration, classroom engagement, cognitive readiness, and academic performance. It recommends strengthening daily breakfast habits, parental support, school-based nutrition education, wellness programs, and feeding initiatives. The study aligns with SDG 2, SDG 3, and SDG 4 by addressing food security, adolescent nutrition, and learning outcomes. Its sustainability impact supports public health, educational, community, and socio-economic initiatives for student well-being and academic success.

Keywords: Academic Performance, Breakfast Consumption, Classroom Engagement, Grade 10 Students, Lapgap National High School, Learning Focus, Morning Meal Habits, Nutrition Education, Parental Encouragement, School Feeding Programs

1. Introduction

Breakfast is a fundamental component of students' nutritional intake and plays a vital role in supporting cognitive functioning, physical well-being, classroom engagement, and academic performance. Despite its recognized importance, many students skip breakfast due to time constraints, socio-economic difficulties, food insecurity, limited access to nutritious food, and personal habits. These factors may negatively affect concentration, memory, energy levels, and participation in school activities. This study examines the morning meal habits of Grade 10 students at Lapgap National High School and explores how breakfast consumption relates to their learning focus and academic performance.

1.1 Morning Meal Habits and Academic Performance of Grade 10 Students

Adequate nutrition, particularly a nutritious breakfast, is essential to the cognitive and physical well-being of school-aged children. Breakfast not only satisfies hunger but also contributes to improved academic and behavioral performance among students (Tam, B., 2022). For junior high school students, breakfast consumption can significantly influence energy levels, concentration, memory recall, and classroom engagement. Regular breakfast intake provides strength, enhances physical functioning, and helps students maintain alertness throughout the day (Lakmali S. S., et al, 2022). Despite these benefits, many students fail to consume breakfast consistently. Skipping meals is common among adolescents, a developmental period during which long-term dietary habits are formed (Pengpid S., et al 2025). Factors such as demanding schedules, socio-economic limitations, food insecurity, accessibility issues, and personal beliefs contribute to this practice. These challenges may adversely affect students' health, cognitive development, and academic achievement.

1.2 Factors Influencing Morning Meal Habits and Their Academic Implications

Existing literature identifies several factors influencing breakfast consumption among adolescents. Time constraints associated with early school schedules, lengthy travel times, and rushed morning routines often reduce opportunities for students to eat breakfast. Socio-economic difficulties further limit access to nutritious morning meals, particularly among families experiencing financial hardship. Food accessibility also affects breakfast consumption. Limited access to nutritious food options in low-income and underserved communities has been identified as a major barrier, leading many students to rely on low-nutrient alternatives (Badrasawi et al., 2021). Personal habits and perceptions likewise influence breakfast behavior. Some students skip breakfast because they do not feel hungry in the morning, while others hold misconceptions regarding weight management. Research further indicates that breakfast skipping is associated with low energy levels, reduced concentration, and emotional distress during school hours (CDC, 2023). These outcomes may hinder students' participation, engagement, and overall learning experiences.

1.3 Local, National, and Global Context of Breakfast Consumption Among Adolescents

Globally, breakfast consumption is recognized as an important contributor to student health and educational outcomes. However, breakfast skipping remains prevalent among adolescents. Nationally, food insecurity continues to affect many Filipino families. Data from the Food and Nutrition Research Institute (FNRI, 2023) indicate that nearly 30% of school-aged children come from food-insecure households, making breakfast an inconsistent component of their daily routines. At the local level, students in rural communities such as Barangay Lapgap, Maydolong, Eastern Samar, may encounter additional challenges related to food accessibility and limited school nutrition support. These conditions highlight the need to understand breakfast habits within the specific context of Lapgap National High School.

1.4 Conceptual Basis of Morning Meal Habits and Academic Performance

The study is anchored on the premise that adequate nutrition positively influences students' cognitive functioning, learning focus, classroom participation, and academic performance. Breakfast serves as an important source of energy that supports concentration, memory retention, and engagement during classroom activities. Consequently, consistent breakfast consumption is expected to contribute to better educational outcomes, whereas breakfast skipping may negatively affect learning experiences and academic achievement.

1.5 Research Gap on Morning Meal Habits and Academic Performance Among Grade 10 Students

Although the importance of breakfast has been widely documented, limited research has examined the relationship between morning meal habits and academic performance among Grade 10 students at Lapgap National High School. Existing studies provide national and international perspectives on breakfast consumption, yet localized evidence regarding students' experiences, attitudes, and challenges remains scarce. Without context-specific information, interventions may not adequately address underlying factors such as food insecurity, accessibility concerns, time constraints, and lack of awareness. This study seeks to fill this gap by examining students' breakfast habits, identifying factors that influence breakfast consumption, assessing learning focus during classroom activities, and determining the relationship between morning meal habits and academic performance.

1.6 Alignment of the Study with Relevant Sustainable Development Goals (SDGs)

This study aligns with several Sustainable Development Goals. It supports SDG 3 – Good Health and Well-Being by promoting awareness of proper nutrition and healthy eating practices among adolescents. The study also contributes to SDG 4 – Quality Education by examining factors that influence students' learning focus, classroom engagement, and academic performance. Furthermore, the study relates to SDG 2 – Zero Hunger through its focus on food security and access to adequate nutrition among school-aged children.

1.7 Importance of the Study to Multidisciplinary Sustainability and Student Well-Being

The study contributes primarily to public health sustainability, educational sustainability, community sustainability, and socio-economic sustainability. By providing evidence on the relationship between breakfast habits and academic outcomes, the findings may support the development of sustainable nutrition interventions that improve student well-being and educational achievement. The study may assist the Local Government Unit of Maydolong in developing nutrition-related programs and policies, support NGOs and community organizations in designing targeted interventions, and help Lapgap National High School strengthen student support initiatives. It may also provide evidence for the Department of Education (DepEd) in refining nutrition and school-feeding programs aimed at improving learning outcomes and reducing educational disparities.

1.8 Scope of the Investigation on Morning Meal Habits and Academic Performance

The study focuses on Grade 10 students enrolled at Lapgap National High School during the academic year 2025–2026. It examines students' breakfast frequency, types of foods consumed, factors influencing breakfast habits, learning focus

during classroom activities, and the relationship between morning meal habits and academic performance. Data are gathered through surveys and interviews that emphasize students' self-reported experiences. The study aims to provide an overall description of breakfast habits among Grade 10 students without making inferential comparisons across demographic or academic subgroups.

2. Material and methods

2.1 Research Design

The study employed a correlational research design to investigate the relationship between breakfast habits and academic indicators. It sought to determine whether a statistically significant association exists between students' breakfast consumption habits and their learning focus. Pearson's correlation coefficient (r) was intended for use when variables met the assumptions of normality and were measured on a continuous scale. If these assumptions were not satisfied, Spearman's rank correlation was used as a non-parametric alternative.

2.2 Locale of the Study

The study was conducted at Lapgap National High School, located in an upstream barangay of Maydolong, Eastern Samar. The school serves students from rural communities that often experience socioeconomic and accessibility challenges. This setting provided a relevant context for examining how environmental, economic, and logistical factors influence students' breakfast habits and their academic performance. The locale also offered insights into barriers to breakfast consumption and their potential effects on classroom engagement and learning readiness.

2.3 Respondents of the Study

The respondents were Grade 10 students enrolled at Lapgap National High School during the academic year 2025–2026. These students came from upstream communities in Maydolong, Eastern Samar, where access to nutritious food and health-related resources may be limited. Their experiences and perspectives were considered important in understanding the relationship between breakfast consumption habits and academic performance. Respondents were included regardless of gender, socioeconomic status, or academic standing to ensure diverse representation.

2.4 Sample and Sampling Procedure

The study utilized simple random sampling to select participants from the Grade 10 student population. Each student was given an equal opportunity to be included in the sample. A complete list of Grade 10 students was obtained from the school registrar, and participants were selected through a lottery method. This procedure helped minimize selection bias and ensured that the sample adequately represented the target population.

2.5 Research Instrument

Data were collected using a structured questionnaire adapted and modified from validated sources, particularly the constructs discussed in Musaiger, A. O., et al (2016). The instrument was designed to gather information on students' breakfast habits and learning focus. The first section collected demographic information to provide contextual data and facilitate the interpretation of responses. The second section assessed breakfast consumption habits, including frequency of breakfast intake and types of foods consumed, through a frequency and preference checklist. The final section measured students' learning focus during classroom activities using a 5-point Likert scale. Breakfast consumption habits were assessed through a Frequency and Preference Checklist and a 5-point Likert Scale adapted from Musaiger, A. O., et al (2016). The instrument measured students' perceptions and practices regarding breakfast consumption, including how frequently they ate breakfast and the types of food consumed. Responses were interpreted using the categories: To a Greatest Extent, To a Great Extent, To a Moderate Extent, To a Little Extent, and To No Extent.

2.6 Data Gathering Procedure

Prior to data collection, the researcher coordinated with Lapgap National High School and secured the necessary assistance from school administrators and class advisers. Enrollment records were used to identify the target population and randomly selected participants. Data collection schedules were arranged in consultation with school officials. Participants were oriented regarding the purpose of the study and the procedures involved. The survey was administered in a paper-based format, allowing students to report their breakfast habits and learning experiences. Responses were collected anonymously and stored securely. Participation was voluntary, and informed consent was obtained from students and, when necessary, from their parents or guardians. These procedures ensured that the data gathered were accurate, ethical, and aligned with the objectives of the study.

2.7 Data Analysis Techniques

Descriptive and inferential statistical techniques were used to analyze the data. Descriptive statistics summarized students' responses regarding breakfast habits and learning focus. Frequencies were computed for categorical variables, while means and standard deviations were used to describe continuous variables. These measures provided an overview of respondents' breakfast consumption behaviors. To determine the relationship between breakfast habits and academic performance, correlational analysis was conducted. Pearson's correlation coefficient was applied when the data met normality assumptions, whereas Spearman's rank-order correlation was used for non-parametric data. These statistical procedures helped determine the strength and direction of the relationship between breakfast consumption habits and students' academic engagement and learning focus.

2.8 Ethical Considerations

The study adhered to established ethical standards for research involving human participants. Formal permission was obtained from the school head of Lapgap National High School before conducting the study. Coordination with class advisers and school personnel ensured that data collection followed school policies and protected student welfare. Participants were informed about the purpose of the study, the nature of their participation, and their rights as respondents. Informed consent was obtained from students, while parental consent was secured for participants below 18 years old. Participation was voluntary, and respondents were allowed to withdraw at any stage without penalty. To maintain confidentiality, no personally identifiable information was collected. Responses were anonymized using unique codes, and all paper-based survey data were securely stored and accessed only by the researcher. The questionnaire was designed to be age-appropriate, culturally sensitive, and free from psychological risk. Throughout the study, the researcher maintained a respectful and non-intrusive approach to protect the dignity, privacy, and well-being of all participants.

3. Results and Discussion

3.1 Morning Meal Habits and Learning Focus of Grade 10 Students

3.1.1 Demographic Profile of the Respondents

The study involved 33 Grade 10 students. Most respondents were 15 years old, followed by those aged 16 and 17, while only one respondent was 18 years old. The distribution by sex was nearly equal, with slightly more females than males. Most students lived with their parents, while others resided with relatives, guardians, or in boarding houses. The majority of fathers had elementary or high school education, and most households reported monthly incomes between ₱10,001 and ₱20,000, with many also earning below ₱10,000. These findings indicate that the respondents generally come from low-to middle-income households and diverse family living arrangements. Such demographic characteristics may influence access to nutritious food, breakfast routines, and learning readiness. Family background, parental education, and household income may contribute to students' nutritional practices and educational experiences.

3.1.2 Morning Meal Habits of Grade 10 Students

The respondents generally demonstrated positive morning meal habits, with an overall mean of 3.97 interpreted as "To a Great Extent." Students reported regularly eating breakfast before daily activities, often consuming breakfast prepared by family members. They also indicated eating breakfast at home, maintaining regular meal schedules, choosing healthy foods, avoiding processed foods, and recognizing the benefits of breakfast for concentration and daily functioning. The findings suggest that students maintain consistent breakfast routines supported largely by family involvement. The high ratings for family-prepared meals indicate that parents and guardians play an important role in promoting healthy eating behaviors. Students' awareness of the benefits of breakfast may also contribute to their willingness to consume nutritious morning meals, which supports their physical well-being and academic preparedness.

3.1.3 Factors Influencing Morning Meal Habits

The factors influencing breakfast consumption obtained an overall mean of 2.44, interpreted as "To a Little Extent." Most respondents reported that lack of time, absence of hunger, food preferences, peer influence, school food availability, and religious practices had minimal influence on their breakfast habits. Financial limitations were reported to have no significant influence. In contrast, parental or guardian encouragement received a high rating and was interpreted as influencing breakfast consumption "To a Great Extent." These results indicate that family support is the most influential factor in shaping students' breakfast habits. While external circumstances and environmental factors may create minor challenges, parental encouragement remains the primary motivation for maintaining regular breakfast consumption. The findings highlight the importance of family involvement in establishing and sustaining healthy nutritional behaviors among adolescents.

3.2 Learning Focus During Classroom Activities

3.2.1 Attention and Concentration

Students reported a high level of attention and concentration during classroom activities. Most respondents indicated that they could maintain focus throughout lessons and ignore distractions effectively. Reports of sleepiness and drowsiness during class were relatively low. The findings suggest that students generally possess the ability to remain attentive during instructional activities. Their capacity to sustain concentration may contribute positively to classroom participation and academic performance. The low incidence of drowsiness further indicates that most students are physically and mentally prepared for learning.

3.2.2 Participation and Engagement

Students demonstrated moderate to high levels of participation and engagement. They reported actively participating in classroom discussions, although volunteering to ask or answer questions and completing classroom tasks attentively were rated at a moderate level. These findings imply that while students are generally engaged in classroom activities, opportunities remain to strengthen active participation and initiative. Encouraging collaborative learning and interactive instructional approaches may further enhance student involvement during lessons.

3.2.3 Retention and Comprehension

Respondents exhibited strong retention and comprehension skills. Most students reported being able to remember lesson content, understand new topics when introduced, and follow multi-step instructions. The overall learning focus obtained a mean of 3.41, interpreted as "To a Great Extent." The results indicate that students are capable of processing, retaining, and applying classroom information effectively. Strong comprehension and retention skills support academic achievement and suggest that students are generally receptive to learning experiences. Their positive breakfast habits may also contribute to maintaining cognitive readiness during school activities.

3.3 Relationship Between Morning Meal Habits and Learning Focus

The analysis revealed a computed Pearson correlation coefficient of -0.985, which exceeded the tabular value of 0.062 at the 0.05 level of significance. This indicates a statistically significant relationship between morning meal habits and learning focus among Grade 10 students of Lapgap National High School. The correlation was found to be very high in magnitude, suggesting a strong association between the variables. The findings demonstrate that morning meal habits are significantly related to students' learning focus. Consistent and healthy breakfast consumption appears to support students' concentration, participation, comprehension, and overall classroom engagement. The results emphasize the importance of promoting regular breakfast consumption as part of efforts to improve students' academic focus and school performance. Family support and healthy nutritional practices may therefore play a vital role in enhancing students' readiness and capacity to learn.

4. Conclusion & Recommendations

The study found that Grade 10 students of Lapgap National High School generally maintain healthy morning meal habits, characterized by regular breakfast consumption, healthy food choices, and strong family support. Parental encouragement emerged as the most influential factor in sustaining breakfast routines, while financial and environmental factors had minimal influence. Students also demonstrated a high level of learning focus, particularly in attention, concentration, retention, and comprehension during classroom activities. Furthermore, the findings revealed a significant relationship between morning meal habits and learning focus, indicating that consistent and nutritious breakfast consumption contributes positively to students' cognitive functioning, classroom engagement, and overall academic performance.

Students should be encouraged to develop and maintain the habit of eating a nutritious breakfast daily to support concentration and active classroom participation. Parents and guardians should continue providing and encouraging healthy morning meals, while schools and teachers may strengthen nutrition education and wellness programs that promote awareness of the benefits of breakfast. School administrators and policymakers may also support nutrition initiatives and feeding programs that ensure students begin the school day properly nourished. Future studies may include larger samples, additional grade levels, and further examination of how different types of breakfast influence concentration and academic performance.

The study was limited to 33 Grade 10 students of Lapgap National High School, which may restrict the generalizability of the findings to other student populations and educational settings. The investigation focused only on the relationship between morning meal habits and learning focus and relied on responses gathered through a structured survey. The study was also confined to one school and one grade level, limiting broader comparisons across different demographic groups, educational contexts, and breakfast consumption patterns.

Compliance with ethical standards

The authors conducted this study in accordance with established ethical standards for research involving human participants. Prior permission was obtained from the appropriate school authorities before the conduct of the study. Participants were informed of the purpose of the research, the nature of their involvement, and their rights as respondents. Participation was voluntary, and informed consent was obtained from participants and, when applicable, from their parents or guardians. The authors ensured the confidentiality and anonymity of all respondents by refraining from collecting personally identifiable information and by securely storing all research data. Throughout the study, the authors upheld the dignity, privacy, welfare, and rights of the participants and implemented all research procedures in a respectful and ethically responsible manner.

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