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Living Conditions and Academic Performance of Students Occupying Boarding Houses in Northern Mindanao

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ABSTRACT

Learners' academic performance is affected by a multifaceted array of aspects. This paper focused on the effects of the boarding houses' environment on the educational performance of 279 students of Central Mindanao University from SY 2015-2016. Data concerning the students' demographic profile, academic performance, and characteristics of their boarding houses were collected using a semi-structured questionnaire. They were evaluated statistically using mean, frequency counts, percentage, and Pearson Product Moment Correlation statistical tools. Statistical outcomes showed that more than half of the respondents were below 18 years old, females, enrolled in a BS degree in Agriculture, and single. Regarding religion, Catholics composed the majority of the respondents. The monthly allowance varies according to the parent's income, as the majority were academic scholars with grades below 2.20 and 2.19 for the school's two semesters. All variables relating to the features of the boarding houses were rated as satisfactory based on rental rate, health and sanitation, facilities, accessibility, safety and security, and policies implemented. Moreover, the study found that gender and scholarship type were significantly related to academic performance. Government and private institutions can use the identified factors as the basis for educational program planning and implementation to support the learners' academic performance.

Keywords: Academic performance, boarding houses, demographic profile, living conditions, Mindanao

INTRODUCTION

Boarding houses have rapidly increased due to the growing demand for student housing. These affordable accommodations attract most people who need temporary dwellings for various reasons. At Central Mindanao University, innumerable boarding houses have been constructed inside the campus, offering basic accommodation needs and particular services for a specific period to both secondary and college students who come from distant places. These students share privileges offered by boarding house operations with other students with various ethnic backgrounds, diverse academic interests, and different personalities. The abrupt transition from high school to college results in some challenges in adapting to new situations. Hence, students must adjust to living independently and face all the struggles they may encounter by themselves eventually. However, living in such a situation usually contributes gradually to the overall well-being of university students.

A student considers many aspects when choosing a boarding house to achieve a conducive environment for dwelling and learning. The majority of these students preferred those that are affordable and accessible to schools and other establishments. According to Malaga (2022), Circumstances in boarding houses set conditions that impact students' educational experiences. Navarez's (2017) research brought attention to the inadequate outcomes of surveys conducted on student housing facilities and accommodation in the Philippines. The study revealed that the living conditions of students fail to meet the present requirements and expectations of residents in terms of a student housing facility that prioritizes learner-centered and quality-driven approaches. This includes promoting active and collaborative learning, facilitating meaningful interactions among students from diverse backgrounds and beliefs, and ensuring convenient access to community facilities and services that directly support the educational and social objectives of the university.

Despite the previous findings, there is a scarcity of local studies that specifically address the quality of living conditions in boarding houses in Mindanao, which propelled the researcher to conduct this study.

Theoretical Framework

The present study is anchored in the theory of ecological psychology by Gibson and Gibson (2002). Ecological psychology is a theoretical framework that emphasizes the complex interactions between individuals and their environment and suggests that multiple levels of influence must be considered in understanding human development and behavior. This framework is based on the idea that individuals and their environment are interdependent and that individuals actively shape and are shaped by their environment. Ecological psychology considers the physical and social environment to be a

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dynamic and integrated system that influences individuals' behavior, development, and well-being.

In the context of the present study, ecological psychology is used to explore how multiple levels of influence of boarding houses, such as the rental rates, health and sanitation, housing facilities, accessibility to the university and public establishments, and safety and security policies of the house might impact students' academic performance.

Ecological psychology also emphasizes the importance of studying behavior in natural and meaningful contexts, and advocates for the use of methods that capture the complexity and dynamics of individuals' interactions with their environment. In the context of this study, ecological psychology could encourage researchers to use methods that allow for a comprehensive and nuanced understanding of the ways in which students' living conditions might impact their academic performance.

By using the ecological psychology framework, researchers could gain a more holistic understanding of the complex relationships between individuals and their environment, and how these relationships impact academic performance. This understanding can then be used to inform interventions and policies aimed at improving the living conditions and academic outcomes of students living in boarding houses in Northern Mindanao, Philippines.

Research Questions

1. What is the demographic profile of the selected students from private and public boarding houses, in terms of:
   a. Age;
   b. Course and year;
   c. Gender;
   d. Marital status;
   e. Religion
   f. Monthly allowance; and
   g. Parents' source of income?

2. What is the selected student's academic performance in terms of:
   a. Scholarships;
   b. General weighted average; and
   c. Goals and attitudes?

3. What are the characteristics of the boarding houses in terms of:
   a. Rental rates;
   b. Health and sanitation;
   c. Housing facilities;
   d. Accessibility to university and public establishments;
   e. Safety and security; and
   f. Policies of boarding house?

4. Is there a significant relationship between demographic profile, features of boarding houses, and the student's academic performance?

METHODOLOGY

The study used the descriptive design with survey questionnaires disseminated and filled out by student lodgers. Structured interviews with landlords, landladies, and some of the chosen student-lodgers were also administered to countercheck the data gathered. Moreover, observations of building structures as well as the facilities of the boarding houses were conducted to collect supporting data.

This study was conducted at Central Mindanao University, with 279 university students from selected private and government boarding houses in Musuan, University Town, the heart of Bukidnon.

The study started by obtaining a list of student-lodgers from the university's different government and private boarding houses through random cluster sampling. Then, the researchers coordinated with the students in their selected subjects and their respective boarding house owners or operators. It was followed by distributing questionnaires to the student-boarders for the researcher to collect the necessary data. The accomplished questionnaires were then retrieved after three days and an in-depth interview with the chosen student-boarders and the operators of boarding houses followed, after which the data were organized for analysis. Visitation and observation of these boarding houses' facilities and structures were finally done to countercheck the data gathered.

A survey questionnaire consisting of statements was utilized in this study. The instrument went through clarity and refinement. The instrument consisted of three parts. Part I determined the demographic profile of the students. The second part inquired about the student's academic performances, and part III looked at the possible characteristics of the boarding houses of the respondents in CMU.

Descriptive statistics such as frequency counts, percentages, and means were used to describe the figures obtained from the first until the last part of the questionnaire using the checklist and a 5-point Likert scale. The researcher used Pearson Product Moment Correlation analysis to see if the profile of students and their living conditions in boarding houses in the university have a significant relationship with their academic performance.

RESULTS AND DISCUSSION

Profile of the Respondents

Table 1 presents the personal profile of the respondents in terms of age. The use of frequency and percentage distribution was intended to give a little background of the study's respondents. Table 1 shows that three-fourths (75.0%) of the respondents were below 18, while those above the mean age comprised only one-fourth (25.0%) of the total respondents. The mean age is 18.67 years while the minimum and the maximum age are 16 and 25 years, respectively. It implies that more than the majority of the respondents were still considered dependent on their parents.

Table 1. Respondent's Age

CATEGORY (mean=18.67, min=16, max 25)	FREQUENCY	PERCENT
Below the mean	209	75.0
Above the mean	70	25.0
Total	279	100.0

Table 2. Respondent's Courses

CATEGORY	FREQUENCY	PERCENT
Bachelor of Science in Agriculture	142.0	50.9
Education	32.0	11.5
Hotel & Restaurant Management	28.0	10.0
Civil Engineering	17.0	6.1
BS Biology	15.0	5.4
Home Economics Education	11.0	3.9
FBM	8.0	2.9
Environmental Science	5.0	1.8
Agricultural Engineering	4.0	1.4
Doctor of Veterinary Medicine	3.0	1.1
Electrical Engineering	3.0	1.1
Food Technology	3.0	1.1
Information Technology	3.0	1.1
AB History	1.0	0.4
Total	279.0	100.0

Table 3. Respondent's Gender

CATEGORY	FREQUENCY	PERCENT
Male	88	31.5
Female	191	68.5
Total	279	100.0

The courses taken by the respondents are all reflected in Table 2, which shows 15 different types of courses. It can be seen from the table that the majority (50.9%) of the respondents are taking Bachelor of Science in Agriculture. Those enrolled in Education and Hotel and Restaurant Management followed with 11.5% and 10.0%, respectively. It can also be noted that almost one-third (30%) of the population comprised the other courses offered in engineering, veterinary medicine, and forestry.

The participant's gender is outlined in Table 3. It can be seen that more than two-thirds (68.5%) of the respondents were females, while those who belong to the male category comprise the other almost one-third (31.5%). This result indicates that females still dominate the gender in colleges and universities.

On the other hand, Table 4 presents the respondent's marital status. As reflected in the table, almost all (98.9%) respondents were still single. Those who are schooling that are already married are only 1.1% of the total population. It means many students still believe in focusing on studying while obtaining a college education. It also shows that some students still value education despite being married already.

A study by Brilliantes et al. (2012), Jackson et al. (2019), and Kulkarni, Pathak, and Sharma (2013) found gender differences in the academic performance of male and female students. Findings showed that girls had a higher mean academic achievement compared to boys. The same findings were seen by Parajuli and Parajuli (2017), who found that female Nepalese students surpass their male counterparts due to a culturally-laden context where girls are given more attention and sympathy than boys. On the contrary, the study of Adigun et al. (2015) revealed that male students in Nigeria performed marginally better than female students, although the difference was not statistically significant. Additionally, their better performance was shown to be more evident in the private schools, which have the best results of male academic performance in the region.

On the other hand, another profile of the respondents investigated in this study was their religion, which was reflected in Table 5. It can be noted in the table that Catholics still dominated the Philippine religion, with almost four-fifths (78.1%) of the respondents. Evangelicals followed with 5.7%. The least proportion were those practicing Seventh-day Adventists (5.0%), Born Again (2.9%), Iglesia ni Cristo (1.8%), Jehovah's Witnesses (0.4%), and Pentecostals (2.2%) Christians.

Table 4. Respondent's Marital Status

CATEGORY)	FREQUENCY	PERCENT
Single	276	98.9
Married	3	1.1
Total	279	100.0

Table 5. Respondent's Religion

CATEGORY	FREQUENCY	PERCENT
Catholics	218	78.1
Baptists	14	5.0
SDA	11	3.9
Born Again	8	2.9
Iglesia ni Cristo	5	1.8
Pentecostal	6	2.2
Jehova's Witness	1	0.4
Evangelicals	16	5.7
Total	279	100.0

Table 6. Respondent's Allowance Every Month

CATEGORY (mean=2,709.85, min = 500,max=9000)	FREQUENCY	PERCENT
1000 and below	38	13.6
1001 to 2000	106	38.0
2001 to 3000	63	22.6
3001 to 4000	37	13.3
4001 to 5000	28	10.0
5000 and above	7	2.5
Total	279	100.0

Table 6 presents the monthly allowance received by the respondents from their parents or guardians. As can be gleaned from the table, almost two-fifths (38.0%) of the respondents received a monthly allowance that ranges from 1001 to 2000. Those who received a monthly allowance of 2001 to 3000, 1000 and below and 3001 to 4000 followed with 22.6%, 13.6%, and 13.3%, respectively. Only 2.5% of respondents received a monthly allowance of 5000 and above. The minimum monthly allowance received was 500 pesos, while the maximum was 9000. The average monthly allowance was 2,709.85.

Table 7 presents the sources of income of the respondent's family, who come from different places in Mindanao. As shown in the table, most (44.8%) of the respondent's family comes from farming. Employment comes next with 28.3%, followed by those whose income comes from businesses other than farming (i.e. sari-sari store, buy and sell, and the like) with 24.0%). Those respondents supported by parents working abroad or OFW accounted for the least proportion, with 2.9% of the respondents.

Academic Performance of the Respondents

The respondent's academic performance was subdivided into categories, which include their scholarships and general weighted average in two semesters.

Table 8 presents the type of scholarships the respondents have while studying at Central Mindanao University. The scholarships were divided into two categories- the academic and non-academic types.

As presented in Table 8, most (35.8%) of the respondents were supported by their parents in their college education, followed by those who were college scholars and grant-in-aid with 31.5% and 24.0%. Non-academic scholars, such as those students with athletic skills and singing talents, comprise only 7.5% of the respondents. In contrast, those university scholars comprised the least proportion, with 1.1% of the respondents.

Scholarships are considered an overarching piece of the puzzle that makes up a solid foundation in assisting students seeking to complete a degree. According to Graziosi et al. (2020), the financial necessity and other academic requirements that can impede a student from concentrating on their studies are solved by scholarships, allowing scholars more time for their studies. The same findings were also seen by Page, Kehoe, Castleman, and Sahadewo (2017) who discovered that selected scholars were more likely to graduate with honors than those who are not scholars.

As shown in Table 9, the mean grade was 2.20 and 2.19 for the first and second semesters, respectively. More

Table 7. Family's Source of Income

CATEGORY	FREQUENCY	PERCENT
Farming	125	44.8
Employment	79	28.3
Overseas Filipino Worker	8	2.9
Businesses other than Farming	67	24.0
Total	279	100.0

Table 8. Respondent's Type of Scholarships

CATEGORY	FREQUENCY	PERCENT
Academic Scholars	179	64.2
a. University	3	1.1
b. Grant-in-Aid	67	24.0
c. College	88	31.5
Non-Academic Scholars	100	35.8
Total	279	100.0

Table 9. Respondent's Average in the First and Second Semesters

CATEGORY (mean = 2.20, min =1.26, max = 3)	FREQUENCY	PERCENT
I-First semester		
Below the Mean	151	54.0
Above the Mean	128	46.0
Total	279	100.0
CATEGORY (mean = 2.19, min = 1.41, max =3.0)	FREQUENCY	PERCENT
II – Second semester		
Below the Mean	144	52.0
Above the Mean	135	48.0
Total	279	100.0

than the majority of the respondents, both in the first and second semesters, were below the mean grade with 54.0% and 52.0%, respectively. It means that the respondents were getting good grades. It can be attributed to the fact that more than most of the students were scholars compared to only 35.8% who were not. Those with an average grade above the mean of 2.20 and 2.19 comprised 46.0% and 48.0%, respectively, for the first and second semesters.

Various Characteristics of the Boarding Houses

As presented in Table 10, the rental rates of boarding houses were rated by students as "satisfactory," with a mean of 2.68. It implies that the rental of boarding houses was just a reasonable 41 to 60% of the time.

As indicated in Table 11 on health and sanitation, all indicators were rated as satisfactory, with an overall mean of 2.73. It implies that occupants of boarding houses' cleanliness (2.68), maintenance (2.74), and waste disposal were practiced 41 to 60% of the time.

Table 12 presents the housing facilities of boarding houses at CMU. As shown from the table, all facilities were rated "satisfactory," with an overall mean of 2.58.

The top five indicators which were rated the highest were lighting (2.73), receiving area (2.66), bedroom arrangement (2.60) study area (2.58), and comfort room (2.57). Other amenities include a bathroom (2.52), laundry area (2.56), kitchen (2.56), dining area (2.52), and the lowest rating of "fair" ventilation (2.50).

It can be noted in Table 13 that in terms of accessibility of the student boarding houses, they rated it as satisfactory, with an overall mean of 2.73. It means that about 41 to 60% of the time, the boarding houses were accessible to water, electricity, a waiting shed, a hospital, and a church. The highest ratings among the indicators were electricity, with 2.93, followed by hospital and water, with 2.77 and 2.73, respectively. Accessibility for the waiting shed and market each has a 2.68 mean rating. The lowest rating was on accessibility to church, with 2.61.

Table 14 presents the safety and security of boarding houses. As shown in the Table, all the safety and security indicators have a descriptive rating of satisfactory. Firefighting facilities were rated the highest with 2.86, followed by curfew policy and first aid box with 2.76 and 2.67, respectively. The lowest rating was on gate and fences, with 2.56, which can be attributed to the fact that only a few of the boarding house has defined fences and gates based on the ocular survey the researchers conducted.

Generally, the rating of security and safety is 2.71, which means satisfactory and implies that security and safety good practices were done by the boarding houses 41 to 60% of the time.

As seen from Table 15, all the policy indicators on boarding houses were rated satisfactory with an overall mean of 2.66. It implies that implementation (2.53), monitoring (2.54), and sanction (2.92) good practices were done 41 to 60% of the time.

Relationship Between Demographic Factors, Features of the Boarding Houses, and Academic Performance

Table 16 presents the relationship between the demographic factors, features of boarding houses, and students' academic performance.

Based on the correlation analysis, there is no statistically significant relationship between the student's demographic profile and their

Table 10. Boarding House's Rental Rate

INDICATOR	MEAN	DESCRIPTIVE RATING
Reasonable	2.68	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

Table 11. Boarding House's Health and Sanitation

INDICATOR	MEAN	DESCRIPTIVE RATING
Cleanliness	2.68	Satisfactory
Maintenance	2.74	Satisfactory
Waste Disposal	2.78	Satisfactory
MEAN	2.73	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

Table 12. Boarding House Facilities

INDICATOR	MEAN	DESCRIPTIVE RATING
Receiving Area	2.66	Satisfactory
Bedroom Arrangement	2.60	Satisfactory
Study Area	2.58	Satisfactory
Lighting	2.73	Satisfactory
Comfort Room	2.57	Satisfactory
Kitchen	2.56	Satisfactory
Laundry Area	2.56	Satisfactory
Bath Room	2.53	Satisfactory
Dining Area	2.52	Satisfactory
Ventilation	2.50	Fair
MEAN	2.58	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

Table 13. Boarding house's accessibility

INDICATOR	MEAN	DESCRIPTIVE RATING
Water	2.73	Satisfactory
Electricity	2.93	Satisfactory
Waiting Shed	2.68	Satisfactory
Market	2.68	Satisfactory
Hospital	2.77	Satisfactory
Church	2.61	Satisfactory
MEAN	2.73	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

Table 14. Boarding House's Safety and Security

INDICATOR	MEAN	DESCRIPTIVE RATING
Gate and Fences	2.56	Satisfactory
Fire Fighting Facilities	2.86	Satisfactory
First Aid Box	2.67	Satisfactory
Curfew Policy	2.76	Satisfactory
MEAN	2.71	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

Table 15. Boarding House Policies

INDICATOR	MEAN	DESCRIPTIVE RATING
Implementation	2.53	Satisfactory
Monitoring	2.54	Satisfactory
Sanction	2.92	Satisfactory
MEAN	2.66	Satisfactory

Legend:

4.51 – 5.00	Excellent	81 to 100% of the time
3.51 – 4.50	Very Satisfactory	61 to 80% of the time
2.51 – 3.50	Satisfactory	41 to 60% of the time
1.51 – 2.50	Fair	11 to 40% of the time
1.00 – 1.50	Needs Improvement	1 to 20% of the time

academic performance. Based on the result, it is evident that a student's demographic profile does not necessarily determine their academic performance. Though family background and characteristics may play a role in shaping a student's upbringing, the result has shown that these factors do not directly impact a student's inherent cognitive level. Thus, the researcher believes it is essential to focus on the individual rather than solely relying on their demographic profile to assess their academic potential.

The same findings were seen by Baker et al. (2011) and Reardon et al. (2019, who both confirmed that family background and neighborhood characteristics have little to no effect on students' inherent cognitive level and academic performance in school. Their studies suggest that external factors such as socioeconomic status, race, or ethnicity may influence access to resources and opportunities, which can impact academic performance, but they do not directly affect a student's innate

Table 16. Correlation Analysis Between Independent and Dependent Variables

Independent Variable	Dependent Variable: Academic Performance		
	Correlation Coefficient	p-value	Interpretation
Demographic Profile	.068	0.260	Not Significant
Characteristics of Boarding Houses	.806*	0.000	Highly Significant

cognitive ability.

On the contrary, the findings of El Refae, Kaba, and Eletter (2021) found that students' attributes, experiences, and family backgrounds impact academic performance. Factors such as parental education level, income, and involvement in their child's education can impact a student's academic performance. For example, students from families with higher socioeconomic status may have access to more resources and opportunities, such as tutoring or extracurricular activities, that could positively impact their academic performance.

Meanwhile, the characteristics of boarding houses were found to have a high significant relationship with the student's academic performance. The findings suggest that the quality of the boarding house where a student resides can significantly impact their academic performance. Therefore, providing access to quality boarding houses that offer supportive and conducive learning environments can be an effective intervention for improving students' academic performance. Similarly, boarding houses that provide social and emotional support, such as counseling services and mentorship programs, can also positively affect students' academic performance by reducing stress and enhancing well-being.

The results support the findings of Oladele, Ogunyemi, and Omonijo (2016) found that students living in better quality boarding houses had higher academic performance compared to those living in poor quality boarding houses. Specifically, the study found that boarding houses with adequate resources, such as adequate study materials, and a good quality living environment, positively impacted students' academic performance. Similarly, Martin et al. (2021) found that boarding students have higher academic achievement compared to day students. Even after controlling for various individual and school-level factors, the researchers found that boarding students showed better academic outcomes. The study suggested that the boarding school environment, which includes characteristics such as residential facilities, access to academic resources, and a supportive social environment, may contribute to higher academic achievement among students. These factors can create an environment that is conducive to learning, with fewer distractions and more opportunities for students to focus on their studies.

With a comprehensive understanding of these results on the relationship of boarding houses and academic performance, could be used to inform and guide educators on how to best support their students. By having a comprehensive understanding of these results, educators can take steps to ensure that students have access to the necessary resources and support systems that can help them perform better academically.

CONCLUSIONS

Generally, the occupants of boarding houses are below 18 years of age, female, taking up Bachelor of Science in Agriculture and single. They practiced Catholicism's who received 1001 to 2000 monthly allowance from their parents who are mostly farmers. They were academic scholars who maintain grades below 2.20 and 2.19 for the first semester and second semesters, respectively.

All of the variables related to the features of boarding houses were rated "satisfactory" namely rental rate, health and sanitation, housing facilities, accessibility, safety and security, and policy of boarding houses.

Results of the correlation analysis revealed that there is no significant relationship between the student's demographic profile and academic performance, while a highly

significant relationship was found between the characteristics of the boarding houses and the student's academic performance.

RECOMMENDATIONS

Schools could ensure that boarding houses are clean, safe, and equipped with the necessary resources, such as study spaces and libraries, to create an environment conducive to learning. The schools may also provide students with academic and emotional support, such as tutoring, counseling, or mentorship programs, to help them overcome any challenges they may face in their academic and personal lives.

Teachers should develop strong relationships with their students and take time to understand their individual needs and challenges. This can help create a more supportive and collaborative learning environment that can improve student academic performance.

Boarding houses should encourage a healthy social environment that fosters positive relationships among students. This can help reduce feelings of loneliness or isolation, and create a sense of community that can support students in their academic pursuits.

Overall, having a better understanding of the relationship between boarding houses and academic performance can help educators create a more supportive and effective learning environment for their students. By providing students with the necessary support and resources, educators can help their students excel academically and achieve their full potential.

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