ASSESSING THE LEVEL OF PHYSICAL PLANT AND FACILITIES COMPLIANCE: BASIS FOR ACCREDITATION IMPROVEMENT

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ABSTRACT: *This descriptive-quantitative study assessed Physical Plant and Facilities compliance with AACCUP/CHED standards at ZPPSU, a technological higher education institution in Zamboanga City offering programs in engineering, maritime, teacher education, and more. Using convenience-random sampling (majority students from BS Marine Engineering, BS Industrial Technology, etc.; 30 faculty with/without admin roles; 20 stakeholders), data from adapted AACCUP survey checklists (via Google Forms) covered 10 parameters: campus, buildings, classrooms, offices/staff rooms, assembly/athletic facilities, medical/dental clinic, student center, food services/canteen, and accreditation center. All parameters achieved "Complied" ratings (grand mean = 3.10; range 3.00–3.24). Shapiro-Wilk tests violated normality, so Kruskal-Wallis (α=0.05) revealed consensus on classrooms (p=0.537), offices (p=0.652), and support spaces, but significant differences in campus (p<0.001), buildings (p=0.010), and medical/dental clinic (p=0.008).Post-hoc pairwise comparisons (medians on 1–4 scale) showed faculty's lower infrastructure ratings (campus 2.93, buildings 2.78) vs. stakeholders (3.33, 3.00) and students (buildings 3.02); stakeholders out rated students on clinics (3.22 vs. 3.02). Findings affirm accreditation readiness, align with 2025 trends linking facilities to academic outcomes and safety (Vantify, 2025; Bosio & Dioso, 2025), and recommend profile-tailored enhancements (e.g., faculty-focused maintenance, student clinic upgrades) for equitable satisfaction and sustained excellence.*

Keywords: Facilities compliance, AACCUP accreditation, Kruskal-Wallis, Stakeholder perceptions, Higher education Philippines

.INTRODUCTION

The quality and condition of physical plant and facilities in higher education institutions remain crucial factors influencing academic outcomes, institutional accreditation, and overall educational effectiveness. Recent reports emphasize that well-maintained, safe, and adequately equipped educational environments enhance student learning engagement and faculty teaching efficacy [12]. With the growing challenges of increasing enrollment and evolving educational demands, the provision and management of physical facilities must continuously adapt to support a productive academic atmosphere [4].

Quality education, particularly in technological and vocational disciplines, relies heavily on facilities that meet both regulatory standards and the practical needs of learners. The Commission on Higher Education CHED, [25] in the Philippines mandates compliance to Physical Plant and Facilities standards as part of accreditation processes, governed through policies and Memorandum Orders that uphold these quality criteria [3, 5]. Accreditation, as defined through national and international frameworks, serves not only as a validation mechanism but also as a catalyst for continuous institutional improvement and accountability [1].

Recent empirical studies show that environmental factors such as proper lighting, ventilation, noise control, and spatial adequacy significantly impact student motivation, absenteeism, and academic performance [7, 8]. Moreover, stakeholder perceptions—students, faculty, and community partners—shape the feedback loops for facility enhancement strategies, underlining the need for inclusive evaluation methods [13, 14].

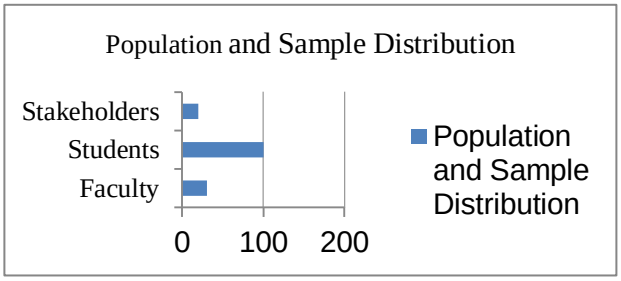
In this context, this study aims to assess the level of compliance of physical plant and facilities within a higher education institution in Zamboanga City, evaluating components such as campus site management, buildings, classrooms, offices, medical clinics, and other relevant infrastructures. The findings intend to contribute to targeted accreditation improvement efforts and to support sustainable educational quality aligned with local and global standards [6, 10].

METHOD

This study utilized descriptive - quantitative research design, in the sense, that the means and direction was directly towards determining the real score or status of the existing situation of the facilities, wherein the survey checklist instrument was utilized as main tool to gather the essential data to determine the status of the actual setting. The study was conducted in one of the institutions that is mandated by the Higher Education Commission CHED, [3] to cater services in line with technological course offering , it is equipped with different technology and machineries that are intended to train students that will be potent source for industry application and practices, it offers different programs that served by different colleges such as College of Teacher Education, College of Engineering and Technology, College of Arts Humanities and Social Sciences, Institute of Technical Education, College of Maritime Education, School of Business Administration, College of Information and Computing Science, and Senior High School program under the Department of Education (DepEd).

The study adapted study that was represented. Considering the data the Convenient-Random sampling design, where in it was dependent on the availability of the respondents of the needed does not warrant the in-person attendance.

Respondents of the Study



The respondents of the study were the faculty without administrative designation and with administrative designation such as the deans and directors, associate deans, and program chairmen all categorized as faculty, and students, and stakeholders coming from randomly selected parents, and community partners. The population distribution by the respondents, with the students as the biggest number of respondents while the smallest was the stakeholders .

RESULTS AND DISCUSSIONS

Parameters	Mean	SD	Descriptive Rating
Campus	3.08	0.56	complied
Buildings	3.01	0.61	complied
Classrooms	3.00	0.64	complied
Offices, Staff and Function Rooms	3.10	0.59	complied
Assembly and Athletic Facilities	3.11	0.62	complied
Medical and Dental Clinic	3.24	0.62	complied
Student Center	3.10	0.64	complied
Food Services/Canteen	3.12	0.63	complied
Accreditation Center	3.15	0.67	complied
Grand Mean	**3.10**	**0.55**	**complied**

Overall results for Level of Physical Plant and Facilities Compliance

The institution's physical plant and facilities meet accreditation standards, with a grand mean of 3.10 and positive feedback from students, faculty, and stakeholders. This aligns with 2025 trends in higher education emphasizing systematic compliance for safety and readiness [11].

Key strengths include the top-rated medical and dental clinic, which complies with updated health protocols for space, equipment, and operations [17, 18]. High-quality facilities like clinics, canteens, and communal spaces boost student health, motivation, morale, and academic performance while reducing absenteeism [2, 12].

Ongoing investments in upgrades, maintenance, and data-driven practices are recommended to sustain excellence and meet evolving regulatory demands [15, 16].

Kruskal - Wallis Test of Difference

Parameters	χ^2	df	p	Decision	Interpretation
Campus	14.322	2	< .001	Ho is rejected	Significant
Buildings	9.206	2	0.010	Ho is rejected	Significant
Classrooms	1.242	2	0.537	Ho is not rejected	Not Significant
Offices and Staff Rooms	0.855	2	0.652	Ho is not rejected	Not Significant
Assembly, Athletic and Sport Facilities	5.069	2	0.079	Ho is not rejected	Not Significant
Medical and Dental Clinic	9.624	2	0.008	Ho is rejected	Significant
Student Center	3.124	2	0.210	Ho is not rejected	Not Significant
Food Services / Canteen/ Cafeteria	2.702	2	0.259	Ho is not rejected	Not Significant
Accreditation Center	3.628	2	0.163	Ho is not rejected	Not Significant

The Kruskal-Wallis test, a non-parametric ANOVA equivalent, revealed varying perceptions of physical plant and facilities compliance among respondent groups (e.g., students, faculty, stakeholders). At
α=0.05, significant differences indicate divergent views by profile, while non-significant results suggest consensus.
Areas of Divergent Perceptions (Significant Differences: $p<0.05$)
Respondent groups rated these parameters differently, potentially reflecting unique priorities or experiences: Campus ($p<0.001$): Strongest divergence; stakeholders may prioritize aesthetics/security differently from students (e.g., faculty value parking/maintenance more). Buildings ($p=0.010$): Variations in views on structural integrity or accessibility, possibly due to daily usage differences. Medical/Dental Clinic ($p=0.008$): Disagreement on health services adequacy; students might rate access higher than faculty, signaling needs for targeted improvements. These suggest the institution should investigate group-specific concerns via post-hoc tests to align expectations.
Areas of Consensus (No Significant Differences: $p>0.05$)
Uniform ratings across profiles imply broad agreement on quality: Classrooms ($p=0.537$), Offices/Staff Rooms ($p=0.652$), and Assembly/Athletic/Sport Facilities: Shared satisfaction with core learning and administrative spaces. **Student Center ($p=0.210$), Food**
Services/Canteen/Cafeteria ($p=0.259$), Accreditation Center ($p=0.163$): Consistent views on support amenities, reinforcing overall compliance strengths.
Overall Implications shows Divergences in high-visibility areas (campus, buildings, clinics) highlight opportunities for profile-tailored enhancements, such as student-focused clinic upgrades or faculty-inclusive building maintenance. Consensus elsewhere supports accreditation readiness. Recommend pairwise comparisons and qualitative follow-ups to pinpoint differences and drive targeted investments for equitable satisfaction.
Post-hoc pairwise comparisons for the significantly differing parameters (campus, buildings, medical/dental clinic) reveal distinct perception patterns among stakeholders, students, and faculty regarding ZPPSU's AACCUP compliance (medians on a 1-4 scale, higher indicating better compliance).
For campus ($p<0.001$), no differences emerged between stakeholders and students or students and faculty, but stakeholders (median = 3.33) rated it significantly higher than faculty (median = 2.93), suggesting faculty critique maintenance or usability more harshly. For buildings ($p=0.010$), students (median = 3.02) and stakeholders (median = 3.00) agreed and rated higher than faculty (median = 2.78), with significant differences in both comparisons; this indicates students/stakeholders see satisfactory compliance, while faculty do not. For medical/dental clinic ($p=0.008$), faculty and stakeholders or faculty and students showed no differences, but stakeholders (median = 3.22) rated it significantly higher than students (median = 3.02), implying students perceive gaps in clinic services despite overall adequacy.
Overall, faculty consistently provide lower ratings on infrastructure (campus, buildings), while stakeholders view clinics and campus more positively; students align variably, highlighting needs for group-specific facility enhancements.

CONCLUSION

The study drew the following key conclusions in sequence from the findings:
The majority comprised students from diverse programs and year levels, including BS Marine Engineering, BS Industrial Technology, Bachelor of Fine Arts, Bachelor of Technical Vocational Teacher Education, and Diploma of Technology.
All physical plant and facilities parameters—campus, buildings, classrooms, offices/staff/function rooms, assembly/athletic facilities, medical/dental clinic, student center, food services/canteen, and accreditation center—met AACCUP standards, with a grand mean of 3.10 and positive feedback across groups.
Significant differences emerged in campus ($p<0.001$), buildings ($p=0.010$), and medical/dental clinic ($p=0.008$) when grouped by profile. Faculty rated infrastructure lower (e.g., campus median 2.93, buildings 2.78) than stakeholders (3.33, 3.00) and students (buildings 3.02), while stakeholders out rated students on clinics (3.22 vs. 3.02). This underscores the value of group-specific assessments to address perceptual gaps.
These insights affirm ZPPSU's accreditation readiness while signaling targeted enhancements for uniform satisfaction.

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