Universitas: Journal of Global Research and Innovation
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Towards a Green Architecture Quality Framework to Strengthen the Mentorship Program

Arch. Mark D. Degala, PhD
Capiz State University, Main Campus Roxas City
https://doi.org/10.5281/zenodo.22831748

ABSTRACT

This study examined the influence of mentorship programs on green architecture quality in architectural education and proposed a Green Architecture Quality Framework to strengthen mentorship practices among architecture students and mentors. The research was anchored on the growing need for architectural education to integrate sustainability principles, environmental responsibility, and professional mentorship in preparing future architects capable of addressing contemporary environmental and urban development challenges. Specifically, the study assessed the level of implementation of green architecture principles within the National Building Code of the Philippines, the quality of mentorship programs in architectural education, and the relationship between regulatory standards and mentorship practices in strengthening architectural design quality.

The study utilized a mixed-method research design, combining quantitative and qualitative approaches to provide a comprehensive understanding of the phenomenon. Quantitative data were gathered through a structured survey administered to architecture students, mentors, and academic practitioners in architecture programs. The survey measured indicators related to green architecture principles, mentorship practices, and design quality outcomes. Statistical analyses, including descriptive statistics, analysis of variance, and regression analysis, were employed to determine the level of implementation and to examine the relationship between green architecture standards and mentorship program effectiveness. To complement the quantitative findings, qualitative interviews with selected informants were conducted to explore their experiences, challenges, and strategies in integrating sustainable design principles into mentorship and studio-based learning environments.

Findings revealed that the integration of green architecture principles significantly contributes to improving the quality of architectural mentorship programs. Mentorship

activities that emphasize sustainable design strategies, environmental considerations, and regulatory compliance enhance students' design competence, professional awareness, and capacity to apply green architecture concepts in real-world contexts. However, the study also identified gaps in the systematic integration of sustainability-focused mentorship structures within architecture programs. Based on the results, a Green Architecture Quality Framework was proposed, integrating sustainability standards, mentorship practices, and institutional support mechanisms to strengthen environmentally responsible architectural education and professional training.

Keywords: green architecture, mentorship program, architectural education, sustainability in design, architecture quality framework.

INTRODUCTION

The global transition toward sustainability has repositioned green architecture from a niche environmental advocacy into a core professional and educational imperative. As the building sector continues to account for a significant share of global energy consumption, carbon emissions, and material use, architectural practice is increasingly required to adopt life-cycle-oriented, performance-based, and environmentally responsive design approaches. Contemporary green building guidelines underscore the integration of human health and well-being, energy and resource efficiency, climate-sensitive design, and continuous performance monitoring as defining attributes of architectural quality. These developments extend the responsibility of architectural education beyond technical competence toward the formation of architects who are environmentally literate, ethically grounded, and capable of addressing complex sustainability challenges.

In the Philippine context, this responsibility is institutionally anchored in the National Building Code of the Philippines (Presidential Decree No. 1096), which mandates the protection of life, health, safety, and public welfare through sound building design, environmental management, and regulatory compliance. While PD 1096 primarily establishes minimum standards for safety, functionality, and accountability, its provisions implicitly align with green architecture objectives such as environmental health, resource responsibility, performance fitness, and continuous improvement. As such, the National Building Code functions not merely as a regulatory instrument but as a foundational platform upon which green architecture quality can be systematically developed.

Within this regulatory–sustainability interface, green architecture quality emerges as an integrative construct encompassing human health and well-being integration, energy and resource efficiency across the building life cycle, environmental responsiveness,

performance-based design and verification, and systems-oriented continuous improvement. These dimensions reflect a shift from prescriptive compliance toward outcome-driven architectural performance. However, the realization of green architecture quality depends not only on formal standards and guidelines, but critically on how these principles are transmitted, interpreted, and internalized during architectural training.

Mentorship programs occupy a pivotal mediating role in this process. In architectural education, mentorship serves as the primary mechanism through which regulatory knowledge, professional values, design judgment, and sustainability competencies are translated into practice. Effective mentorship enables students to contextualize the National Building Code's requirements within broader green architecture principles, transforming compliance-oriented learning into reflective, performance-oriented professional formation. Conversely, weak or fragmented mentorship limits students' ability to synthesize regulatory mandates with sustainability imperatives, resulting in compartmentalized learning experiences.

Despite the growing prominence of green building frameworks, mentorship structures in architectural education have not consistently evolved to reflect the complexity of contemporary green architecture practice. Mentorship programs often emphasize design aesthetics, drafting proficiency, and code familiarity, while insufficiently integrating sustainability performance metrics, environmental responsiveness, and life-cycle thinking. In the Philippine setting, this gap is particularly pronounced as students are expected to reconcile PD 1096's prescriptive requirements with emerging green architecture expectations that demand higher environmental and performance standards.

At Capiz State University – College of Engineering, Architecture and Technology, architecture students are trained within a regulatory environment shaped by PD 1096 while simultaneously facing increasing expectations to respond to climate vulnerability, urbanization pressures, and sustainability mandates. However, the absence of a structured green architecture quality framework for mentorship risks limiting the effectiveness of mentorship programs in developing holistic, sustainability-oriented architectural competencies. Without a formal framework, mentorship practices remain inconsistent, and learning outcomes vary in their depth, coherence, and alignment with green architecture quality dimensions.

Recent studies emphasize that sustainability-oriented architectural education is most effective when mentorship models foreground experiential learning, regulatory literacy, reflective practice, and performance evaluation. Green building guidebooks and sustainability literature further highlight mentorship as a critical conduit for integrating lifecycle assessment, energy modeling, indoor environmental quality analysis, and post-

occupancy evaluation into professional training. These insights reinforce the need to systematize mentorship practices through a quality framework grounded in both regulatory standards and green architecture principles.

Given the Philippines' increasing exposure to climate risks, energy demand growth, and sustainability policy imperatives, architecture schools bear a strategic responsibility to prepare students who can exceed minimum code compliance and contribute to resilient, environmentally responsive built environments. This study, therefore, seeks to develop a Green Architecture Quality Framework to Strengthen the Mentorship Program, positioning mentorship as the mediating mechanism that translates the National Building Code of the Philippines into measurable green architecture quality outcomes among architecture students at Capiz State University.

Research Problem

Existing scholarship on green architecture predominantly concentrates on building performance metrics, environmental rating systems, and professional practice outcomes, with comparatively limited attention given to the quality and structure of mentorship programs within architectural education. While green building frameworks provide robust technical and performance-oriented guidelines, there remains a scarcity of empirically grounded models that systematically integrate green architecture principles, national regulatory requirements, and mentorship pedagogy into a coherent quality framework for architecture students. This gap indicates that sustainability education, although widely acknowledged as essential, remains structurally underdeveloped at the mentorship level where professional values, ethical orientations, and applied competencies are most effectively cultivated.

Furthermore, although the National Building Code of the Philippines (PD 1096) has been extensively examined in terms of regulatory compliance, enforcement mechanisms, and technical standards, its pedagogical integration within architectural mentorship programs remains largely unexplored. Existing studies rarely investigate how mentorship structures can serve as mediating mechanisms that translate building code provisions into green architecture competencies, such as environmental ethics, systems thinking, lifecycle awareness, and performance-based design. This lack of integration limits the potential of PD 1096 to function as a foundational platform for sustainability innovation rather than a mere compliance checklist.

Addressing this gap is critical to aligning architectural education with contemporary sustainability demands. Without a structured green architecture quality framework embedded in mentorship programs, architecture students risk acquiring fragmented

knowledge of code compliance and sustainability principles, rather than developing integrated, performance-oriented professional competence. Consequently, there is a compelling need for a context-responsive Green Architecture Quality Framework that positions mentorship as the central mediating process linking regulatory standards to sustainable architectural practice.

Assumptions of the Study

a. No significant relationship between the extent of implementation of the National Building Code of the Philippines and green architecture quality when the mentorship program is considered as a mediating variable.

Objectives of the Study

Despite the growing emphasis on sustainability and green architecture in professional practice, architectural education continues to face challenges in effectively integrating regulatory standards and sustainability principles through structured mentorship programs. While the National Building Code of the Philippines (PD 1096) establishes minimum standards for safety, environmental management, and performance fitness, the extent to which these regulatory provisions are pedagogically translated into green architecture quality competencies among architecture students remains unclear. In particular, mentorship programs which serve as a critical mediating mechanism between regulatory knowledge and professional competence have not been sufficiently examined in terms of their role in strengthening green architecture outcomes in architectural education.

1. What is the extent of implementation of the National Building Code of the Philippines as perceived by architecture students in terms of:
   a. protection of life, health, and safety;
   b. environmental management and resource responsibility;
   c. functional suitability and performance fitness;
   d. compliance, monitoring, and accountability mechanisms; and
   e. continuous improvement and preventive orientation?
2. What is the level of effectiveness of the mentorship program for architecture students in terms of:
   a. regulatory and green architecture literacy development;
   b. sustainability-oriented design guidance and modeling;
   c. experiential and performance-based learning support; and
   d. reflective practice, feedback, and continuous improvement?
3. What is the level of green architecture quality demonstrated by architecture students in terms of:

a. human health, safety, and well-being integration;
b. energy and resource efficiency across the building life cycle;
c. environmental responsiveness and climate-sensitive design;
d. performance-based design, monitoring, and verification; and
e. integrated systems thinking and continuous improvement orientation?

4. How do architecture students describe their experiences in the mentorship program in terms of integrating National Building Code provisions with green architecture principles in their design learning and professional formation?
5. Is there a significant relationship between the extent of implementation of the National Building Code of the Philippines and green architecture quality when the mentorship program is considered as a mediating variable?
6. Is there National Building Code of the Philippines influence green architecture quality?
7. Based on the findings of the study, what Green Architecture Quality Framework can be proposed to strengthen the mentorship program for architecture students of Capiz State University?

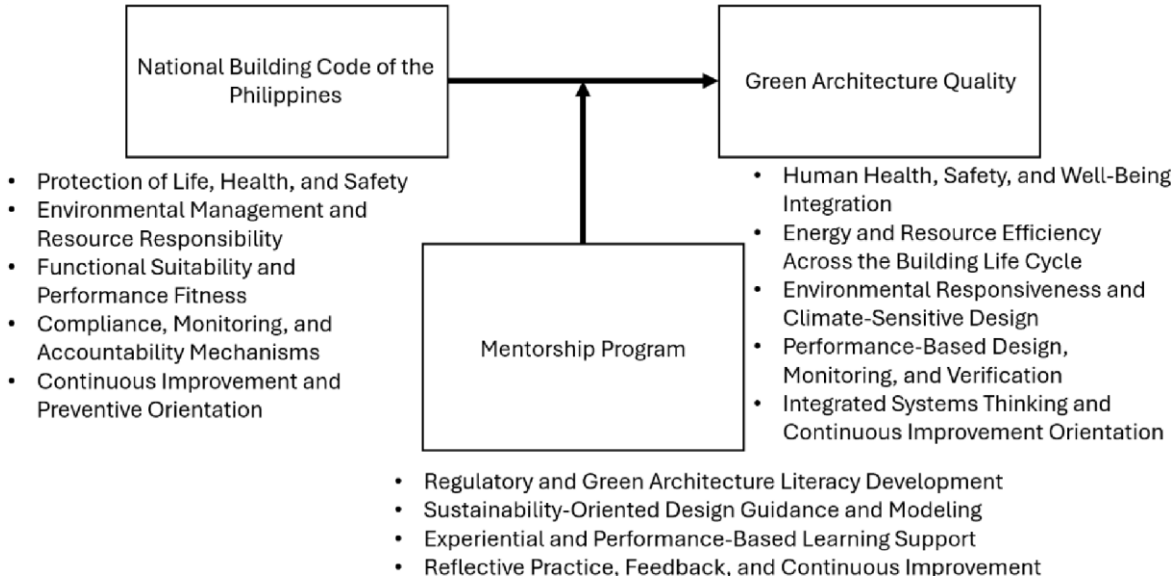
Conceptual Framework

This study is anchored on the premise that the National Building Code of the Philippines (PD 1096) serves as a foundational regulatory framework that shapes architectural practice through its provisions on the protection of life, health, and safety; environmental management and resource responsibility; functional suitability and performance fitness; compliance and accountability mechanisms; and continuous improvement orientation. While PD 1096 primarily establishes minimum standards for safe and functional buildings, its principles implicitly support sustainability objectives aligned with green architecture. However, the translation of these regulatory provisions into advanced green architecture competencies among architecture students does not occur automatically; rather, it requires a structured educational mechanism that enables interpretation, contextualization, and application beyond prescriptive compliance.

In this framework, the Mentorship Program functions as a mediating variable that bridges regulatory standards and green architecture quality outcomes. The mentorship program operationalizes PD 1096 within the educational context through four key dimensions: regulatory and green architecture literacy development; sustainabilityoriented design guidance and modeling; experiential and performance-based learning support; and reflective practice, feedback, and continuous improvement. Through mentorship, architecture students are guided to integrate building code requirements with sustainability principles, apply environmental performance considerations in design decision-making, and engage in reflective learning processes that strengthen professional judgment. The

mediating role of mentorship underscores its function as the primary conduit for transforming regulatory knowledge into sustainability-oriented architectural competence.

Figure 1.
Conceptual Framework



As a result of this mediated process, Green Architecture Quality emerges as the dependent variable, reflected in the integration of human health, safety, and well-being; energy and resource efficiency across the building life cycle; environmental responsiveness and climate-sensitive design; performance-based design, monitoring, and verification; and systems thinking with continuous improvement orientation. The framework posits that effective mentorship strengthens the influence of PD 1096 on green architecture quality by enabling architecture students to move beyond compliance-driven design toward holistic, performance-oriented, and ethically grounded architectural practice. Within the context of Capiz State University – College of Engineering, Architecture and Technology, this conceptual framework provides a structured basis for developing a Green Architecture Quality Framework that strengthens mentorship programs and enhances sustainability outcomes in architectural education.

METHODOLOGY

Research Design

This study employed a mixed methods research design, specifically a convergent parallel mixed methods approach, to comprehensively examine the relationship between the implementation of the National Building Code of the Philippines (PD 1096) and the level

of Green Architecture Quality, and to develop a Green Architecture Quality Framework that strengthens the mentorship program of architecture students at Capiz State University – College of Engineering, Architecture and Technology (CEAT). The mixed methods design was selected to integrate the strengths of both quantitative and qualitative approaches, allowing for a more robust and holistic understanding of the phenomenon under investigation.

The quantitative component involved the administration of a structured survey questionnaire to architecture students to measure the extent of NBCP implementation and the level of Green Architecture Quality across defined indicators. Descriptive and inferential statistical analyses were employed to determine patterns, relationships, and significant effects among variables, including the moderating influence of student demographic profiles. This quantitative strand provided empirical evidence on trends and relationships necessary for framework development.

The qualitative component complemented the quantitative findings through semistructured interviews and document analysis involving selected faculty mentors and key academic stakeholders. This strand explored in-depth perceptions, mentoring practices, challenges, and contextual factors influencing the integration of green architecture principles and regulatory standards in mentorship programs. Qualitative data were analyzed thematically and then integrated with quantitative results during interpretation. The convergence of findings from both strands strengthened the validity of conclusions and informed the formulation of an evidence-based Green Architecture Quality Framework, ensuring that the proposed model is both empirically grounded and contextually responsive.

Research Locale or Study Setting

The study was conducted at Capiz State University (CapSU), specifically within the College of Engineering, Architecture and Technology (CEAT). Capiz State University is a public higher education institution located in the Province of Capiz, Philippines, mandated to provide quality instruction, research, and extension services responsive to regional and national development needs. The CEAT offers programs in engineering, architecture, and allied technologies, serving as a key academic unit responsible for producing technically competent and socially responsible built-environment professionals.

The architecture program under CEAT served as the primary locale of the study, as it provides structured mentorship through design studios, faculty advising, and project consultations that directly influence students' professional formation. This setting is appropriate for the present research because mentorship is embedded in studiobased learning, where students are required to integrate regulatory standards—such as the National Building Code of the Philippines with emerging sustainability and green

architecture principles. The locale thus offers a relevant and controlled academic environment for examining how regulatory compliance and green architecture quality are operationalized within mentorship programs, forming the empirical basis for developing the proposed Green Architecture Quality Framework.

Participants or Data Sources

a. Population of the Study

The population of this study consisted of all architecture students enrolled in the Architecture Program of Capiz State University – College of Engineering, Architecture and Technology (CEAT) during the Academic Year covered by the study. This population included students across different year levels who are actively engaged in studio-based learning and mentorship activities, where the principles of the National Building Code of the Philippines and Green Architecture are introduced and applied.

b. Sample of the Study

From the total population, a sample of 100 architecture students was selected as respondents for the quantitative component of the study. The sample size was determined to provide sufficient representation of the population and to ensure reliability and validity of statistical analysis, while remaining feasible given time and resource constraints. Only students who had experienced formal architectural mentorship through design studios and academic advising were included in the sample to ensure relevance to the study variables.

c. Sampling Technique

The study employed stratified random sampling as the sampling technique. Architecture students were first grouped according to year level (fourth year and fifth year), recognizing that exposure to building codes, green architecture concepts, and mentorship varies across academic progression. From each stratum, respondents were selected through random sampling proportional to the number of students in each year level. This technique ensured equitable representation of students at different stages of architectural training and minimized sampling bias, thereby enhancing the generalizability and credibility of the study findings.

Research Instruments or Materials

This study utilized a researcher-developed, structured survey questionnaire and a semi-structured interview guide as the primary instruments for data collection. The instruments were designed to measure the extent of implementation of the National Building Code of the Philippines (PD 1096), the effectiveness of the Mentorship Program, and the level of Green Architecture Quality among architecture students of Capiz State University – College of Engineering, Architecture and Technology. The instruments were grounded in existing regulatory provisions, green architecture principles, and mentorship pedagogy to ensure content relevance and construct alignment. The quantitative instrument is a selfadministered questionnaire composed of four (4) major parts, using a five-point Likert scale ranging from 1 – Strongly Disagree to 5 – Strongly Agree. The questionnaire was designed to capture students' perceptions across the key variables of the study.

Part I: Respondent Profile: This section gathered demographic information such as year level, sex, academic standing, and prior exposure to green architecture–related coursework or activities. These variables were used solely for descriptive purposes.

Part II: National Building Code of the Philippines (Independent Variable): This section measured the perceived extent of implementation of PD 1096 in architectural education, covering the following indicators:

(a) protection of life, health, and safety;
(b) environmental management and resource responsibility;
(c) functional suitability and performance fitness;
(d) compliance, monitoring, and accountability mechanisms; and (e) continuous improvement and preventive orientation.

Part III: Mentorship Program (Mediating Variable): This section assessed the effectiveness of the mentorship program in terms of:

(a) regulatory and green architecture literacy development;
(b) sustainability-oriented design guidance and modeling; (c) experiential and performance-based learning support; and
(d) reflective practice, feedback, and continuous improvement.

Part IV: Green Architecture Quality (Dependent Variable): This section measured the level of green architecture quality demonstrated by students, focusing on:

(a) human health, safety, and well-being integration;
(b) energy and resource efficiency across the building life cycle;
(c) environmental responsiveness and climate-sensitive design;

(d) performance-based design, monitoring, and verification; and (e) integrated systems thinking and continuous improvement orientation.

Validity and Reliability Test

d. Validity Test

To ensure that the research instrument accurately measured the constructs presented in the conceptual framework, content and construct validity procedures were undertaken. The survey questionnaire was subjected to expert validation by three (3) specialists in architecture education, green architecture, and research methodology. The experts evaluated the instrument in terms of clarity, relevance, alignment with the study variables, and consistency with the National Building Code of the Philippines (PD 1096), mentorship pedagogy, and green architecture quality dimensions.

Each survey item was examined to determine its congruence with the corresponding indicators under the Independent Variable (PD 1096), Mediating Variable (Mentorship Program), and Dependent Variable (Green Architecture Quality) as reflected in the conceptual framework. Minor revisions were made based on expert feedback, including refinement of technical terms, alignment of regulatory language with educational contexts, and clarification of sustainability-related constructs. These procedures ensured that the instrument adequately represented the theoretical and operational domains of the study.

e. Reliability Test

A pilot test was conducted among fifteen (15) architecture students from Capiz State University who were not included in the final sample of the study. The purpose of the pilot test was to determine the internal consistency reliability of the survey instrument. Data gathered from the pilot test were analyzed using Cronbach's alpha coefficient, a widely accepted measure of reliability for Likert-scale instruments.

Table 2.
Reliability Test Results

Variable	Indicators Covered	Cronbach's Alpha	Interpretation
National Building Code of the Philippines	5 indicators	0.88	Highly Reliable
Mentorship Program	4 indicators	0.91	Highly Reliable
Green Architecture Quality	5 indicators	0.89	Highly Reliable
Overall Instrument	All indicators	0.90	Highly Reliable

Data Gathering Procedure

The data-gathering procedure for this study was conducted systematically to ensure accuracy, ethical compliance, and reliability of the data collected. The following steps were undertaken in the collection of data necessary for examining the relationship between the National Building Code of the Philippines and Green Architecture Quality, and for developing a Green Architecture Quality Framework to strengthen the mentorship program of architecture students at Capiz State University – College of Engineering, Architecture and Technology (CEAT).

First, a formal letter requesting permission to conduct the study was prepared and submitted to the University President, the Dean of CEAT, and the Program Head of the Architecture Program. Upon approval, coordination was made with faculty mentors to identify appropriate schedules for administering the survey questionnaire without disrupting academic activities.

Second, the research instrument underwent expert validation and pilot testing prior to its final administration. Revisions were incorporated based on feedback from validators and pilot respondents to ensure clarity, relevance, and alignment with the study variables. The finalized questionnaire was then reproduced and prepared for distribution.

Third, the survey questionnaires were administered to the selected 100 architecture student respondents using stratified random sampling. The researcher personally explained the purpose of the study, assured respondents of confidentiality and anonymity, and provided instructions on how to properly accomplish the questionnaire. Respondents were given sufficient time to answer all items, and completed questionnaires were retrieved immediately to ensure a high response rate.

Fourth, for the qualitative component of the study, semi-structured interviews were conducted with selected faculty mentors and key academic stakeholders. Interview guides were used to explore mentoring practices, challenges, and perspectives on integrating building code provisions and green architecture principles. Interviews were conducted with informed consent, recorded with permission, and transcribed for analysis.

Finally, all collected data were organized, coded, and prepared for statistical and thematic analysis. Quantitative data were encoded into appropriate software for analysis, while qualitative data were subjected to thematic coding. The integration of findings from both data sources provided a comprehensive basis for developing the proposed Green Architecture Quality Framework and for drawing valid conclusions from the study.

Data Analysis/ Statistical Treatment

The increasing demand for sustainable and environmentally responsive architectural solutions has intensified the need to align architectural education with regulatory standards and green architecture principles. In the Philippines, the National Building Code of the Philippines (PD 1096) provides the legal foundation for ensuring the protection of life, health, safety, environmental management, and performance fitness of buildings. However, while PD 1096 establishes minimum regulatory standards, there remains limited empirical evidence on how effectively these provisions are implemented and internalized by architecture students, particularly in relation to sustainability-oriented competencies. Moreover, the extent to which regulatory compliance translates into measurable green architecture quality outcomes within architectural education remains insufficiently examined.

Mentorship programs play a critical mediating role in bridging regulatory knowledge and sustainability-oriented architectural practice. Through mentorship, architecture students are expected to integrate building code provisions with green architecture principles such as human well-being, energy efficiency, environmental responsiveness, and performance-based design. However, the effectiveness of mentorship programs in facilitating this integration, as well as their influence on green architecture quality, has not been systematically assessed in the context of Philippine architectural education.

In particular, there is a need to examine mentorship practices at Capiz State University – College of Engineering, Architecture and Technology, and to determine whether mentorship serves as a significant mechanism linking PD 1096 implementation to green architecture quality. Addressing this gap will provide an empirical basis for proposing a Green Architecture Quality Framework that strengthens mentorship programs and supports sustainability-driven architectural education.

Table 3.
Statement of the Problems and Statistical Treatment

Statement of the Problem	Statistical Treatment	Purpose
1. What is the extent of implementation of the National Building Code of the Philippines as perceived by architecture students in terms of: a) protection of life, health, and safety; b) environmental management and resource responsibility; c) functional suitability and performance fitness; d) compliance, monitoring, and accountability mechanisms; and continuous improvement and	Descriptive Statistics	To determine the perceived extent and consistency of PD 1096 implementation across its major regulatory dimensions.
2. What is the level of effectiveness of the mentorship program for architecture students in terms of: a) regulatory and green architecture literacy development;	Descriptive Statistics	To determine the perceived extent and consistency of PD 1096 implementation across its major regulatory dimensions.
b) sustainability-oriented design guidance and modeling; c) experiential and performance-based learning support; and reflective practice, feedback, and continuous improvement?		
3. What is the level of effectiveness of the mentorship program for architecture students in terms of: a) regulatory and green architecture literacy development; b) sustainability-oriented design guidance and modeling; c) experiential and performance-based learning support; and reflective practice, feedback, and continuous improvement?	Descriptive Statistics	To assess the level of effectiveness of the mentorship program based on students' perceptions across its instructional and developmental indicators.

4. What is the level of green architecture quality demonstrated by architecture students in terms of: a) human health, safety, and well-being integration; b) energy and resource efficiency across the building life cycle; c) environmental responsiveness and climate-sensitive design; d) performance-based design, monitoring, and verification; and integrated systems thinking and continuous improvement orientation?	Descriptive Statistics	To measure the degree to which students demonstrate green architecture quality using sustainability- and performance-based indicators.
5. How do architecture students describe their experiences in the mentorship program in terms of integrating National Building Code provisions with green architecture principles in their design learning and professional formation?	Thematic Analysis	To capture in-depth qualitative insights into students' lived experiences, perceptions, and reflective learning processes that are not measurable through quantitative tools.
6. Is there a significant influence of the National Building Code of the Philippines on green architecture quality when the mentorship program is considered as a mediating variable?	Multiple Linear Regression Analysis	To determine the predictive influence of PD 1096 on green architecture quality and to assess the mediating contribution of the mentorship program variables.

	One-Way Analysis of Variance (ANOVA)	To test the overall significance of the regression model and determine whether variations in mentorship program effectiveness significantly explains differences in green architecture quality.
7. Based on the findings of the study, what Green Architecture Quality Framework can be proposed to strengthen the mentorship program for architecture students of Capiz State University?	Framework Synthesis (Integrative Analysis)	To develop a data-driven, context-specific Green Architecture Quality Framework grounded in the integrated quantitative and qualitative findings of the study.

Ethical Considerations

This study was conducted in accordance with established ethical standards for educational research to ensure the protection, rights, and well-being of all participants. Prior to data collection, the researcher secured formal approval from the appropriate authorities, including the Schools Division Office and the participating school administrators. All respondents were provided with a clear explanation of the purpose of the study, the nature of their participation, and the intended use of the data. Participation in the study was strictly voluntary, and informed consent was obtained from all participants before the administration of the research instrument.

Confidentiality and anonymity of the respondents were strictly maintained throughout the research process. No personal identifiers such as names, employee numbers, or specific school affiliations were included in the survey instrument or in the data analysis. The data
collected were treated with utmost confidentiality and were used solely for academic and research purposes. All responses were reported in aggregate form, ensuring that individual participants could not be identified in any part of the research report.

Furthermore, the researcher ensured that the study adhered to the principles of integrity, objectivity, and transparency. The data were collected honestly and analyzed without manipulation or misrepresentation of results. Participants were assured that their responses would not affect their employment status, performance evaluation, or professional standing. The researcher also committed to the ethical dissemination of findings, ensuring that the results are presented accurately and responsibly, and that the proposed framework is derived solely from empirical evidence and scholarly analysis.

RESULTS AND DISCUSSION

1. Demographic Profile

The demographic distribution of the 102-architecture student-respondents reveals a statistically significant concentration in the third-year level ($n = 62$, 60.8%, $p = 0.037$), followed by fourth year (26.5%, $p < .001$) and fifth-year students (12.7%, $p < .001$). The test of proportion against the null hypothesis (H_0: $p = 0.50$) indicates that the observed distribution significantly deviates from an equal proportion benchmark, suggesting that the sample is predominantly composed of mid-level students who are typically immersed in advanced design studios and increasing regulatory exposure. This distribution is methodologically relevant because third-year students are generally transitioning from foundational architectural theory to applied studio-based integration of the National Building Code of the Philippines (Presidential Decree No. 1096) and sustainability principles. The statistically significant skew toward this cohort strengthens the study's capacity to examine mentorship-mediated integration of regulatory and green architecture competencies at a critical developmental stage. With respect to mentorship exposure, group mentoring emerged as the most common format (36.3%, $p = 0.007$), followed by studio-based mentoring (20.6%, $p < .001$), while a notable proportion of students reported no mentorship exposure (26.5%, $p < .001$). The presence of a statistically significant proportion of students without structured mentorship highlights a structural variability in mentoring access. Similarly, engagement in design studio mentorship activities shows that design critiques (36.3%, $p = 0.007$) are the dominant interactive mechanism, yet 30.4% ($p <$

.001) reported no participation in such activities. These findings indicate that while collaborative and critique-based mentoring is present, its reach is uneven. From a statistical standpoint, the significant p-values across categories confirm that mentorship structures are not uniformly distributed, reinforcing the necessity of examining mentorship as a mediating variable influencing green architecture quality outcomes.

Participation in sustainability-related activities further demonstrates variability. Seminars (34.3%, p = 0.002) and sustainability workshops (23.5%, p < .001) were the most frequently reported activities; however, 17.6% (p < .001) indicated no participation in sustainability-focused engagements. More technically oriented activities such as codebased design exercises (3.9%, p < .001) and research projects (6.9%, p < .001) showed minimal representation. The statistically significant deviations from the 0.50 proportion benchmark suggest that sustainability engagement remains fragmented rather than systematically embedded. This uneven exposure underscores the conceptual premise of the study: that regulatory standards under PD 1096, when not consistently reinforced through structured mentorship and sustainability engagement, may result in variable green architecture competency development. Overall, the demographic profile statistically supports the need for a structured Green Architecture Quality Framework that strengthens mentorship programs to ensure consistent regulatory integration and sustainability-oriented learning outcomes across architecture students.

Table 4. Demographic Profile

	Level	Count	Total	Proportion	p
Year Level	Third Year	62	102	0.608	0.37
	Fourth Year	27	102	0.265	<.001
	Fifth Year	13	102	0.127	<.001
Mentorship Exposure	Studio- Based mentoring	21	102	0.206	<.001
	One-on-one Faculty Mentoring	13	102	0.127	<.001
	Group Mentoring	37	102	0.363	0.007
	Integrated Design Studio Mentorship	4	102	0.039	<.001
	None	27	102	0.265	<.001
Engagement in Design Studio Mentorship Activities	Design critiques	37	102	0.363	0.007
	Consultations	14	102	0.137	<.001

	Reviews	8	102	0.078	<.001
	Feedback Sessions	12	102	0.118	<.001
	None	31	102	0.304	<.001
Participation in Sustainability	Sustainability workshops	24	102	0.235	<.001
	Code-based design exercises	4	102	0.039	<.001
	Seminars	35	102	0.343	0.002
	Research projects	7	102	0.069	<.001
	Community-Based design initiatives	14	102	0.137	<.001

Table 4. Demographic Profile

Level	Count	Total	Proportion	p
None	18	102	0.176	<.001

Note. H_a is proportion ≠ 0.5

2. Implementation of the National Building Code of the Philippines

The results in Table 5 demonstrate a statistically significant and consistently high level of perceived implementation of the National Building Code of the Philippines (Presidential Decree No. 1096) across all measured dimensions. All fifteen indicators yielded extremely high t-values ranging from 48.4 to 74.4 with 101 degrees of freedom, and all were significant at $p < .001$. These findings indicate that the mean responses for each item significantly exceed the neutral test value, reflecting strong agreement among students regarding the integration of life, health, and safety provisions into their architectural design work. In particular, awareness of professional accountability ($t = 74.4$, $p < .001$), continuous revision based on performance considerations ($t = 69.4$, $p < .001$), and preventive design strategies ($t = 66.4$, $p < .001$) registered the highest statistical magnitudes. This suggests that students internalize regulatory compliance not merely as technical requirement but as an ethical and professional obligation, consistent with the protective and public welfare orientation embedded in PD 1096.

The environmental management and resource responsibility domain likewise demonstrates strong implementation. Students reported statistically significant agreement that their design outputs reflect responsible management of energy, water, and materials ($t = 60.6$, $p < .001$) and that they consider environmental impacts in studio-based and mentored activities ($t = 56.9$, $p < .001$). Furthermore, mentorship encouragement toward environmentally responsible practices aligned with both PD 1096 and green architecture principles recorded a high t-value ($t = 65.2$, $p < .001$), indicating that sustainability

considerations are reinforced within mentoring interactions. These results affirm that regulatory provisions are being interpreted in ways that extend toward green architecture competencies, particularly in resource efficiency and environmental responsiveness, strengthening the argument that PD 1096 functions as a foundational platform for sustainability-oriented architectural education.

Similarly, strong statistical support was observed in the areas of functional suitability, compliance accountability, and continuous improvement. Students significantly agreed that their designs effectively support intended use and operational requirements ($t = 64.1$, $p < .001$) and that they can evaluate functional performance beyond aesthetics ($t = 64.5$, $p < .001$). The requirement for evidence-based compliance through drawings and documentation ($t = 48.4$, $p < .001$) further indicates that regulatory rigor is reinforced through mentorship practices. The uniformly significant p-values across all items confirm that implementation levels are not random but systematically embedded within students' learning experiences. Collectively, the data substantiate that PD 1096 provisions are strongly integrated into architectural training at Capiz State University; however, the magnitude of these findings also underscores the importance of examining how mentorship mediates and enhances this implementation to achieve higher-order green architecture quality outcomes.

Table 5.
Implementation of the National Building Code of the Philippines

		Statistic	df	p
My architectural design projects consistently prioritize occupant safety, structural stability, and fire protection requirements as prescribed by the National Building Code of the Philippines.	Student's t	60.6	101	< .001
I am able to integrate health-related design considerations (e.g., ventilation, sanitation, and safe egress) into my architectural solutions during studio and mentored activities.	Student's t	64.2	101	< .001
Mentorship guidance helps me understand and apply life, health, and safety provisions of the National Building Code in my design decisions.	Student's t	51.3	101	< .001

My architectural design output reflects responsible management of environmental resources, such as energy, water, and materials, in compliance with building regulations.	Student's t	60.6	101	**<.001**
I consider environmental impacts and resource efficiency when making design decisions during studio projects and mentorship consultations.	Student's t	56.9	101	**<.001**
Faculty mentors encourage the application of environmentally responsible practices aligned with both the National Building Code and green architecture principles.	Student's t	65.2	101	**<.001**
		Statistic	**df**	**p**
My architectural designs effectively support their intended use, occupancy, and operational requirements as required by building regulations.	Student's t	64.1	101	**<.001**
I am able to evaluate whether my design solutions function efficiently and appropriately for users and building operations.	Student's t	64.5	101	**<.001**
Mentorship sessions help me assess and improve the functional performance of my architectural designs beyond visual or aesthetic considerations.	Student's t	53.3	101	**<.001**
I understand the importance of complying with building permits, codes, and regulatory documentation in architectural design.	Student's t	65.6	101	**<.001**
My mentors require evidence or justification (e.g., drawings, calculations, checklists) to demonstrate compliance with building standards.	Student's t	48.4	101	**<.001**

I am aware of my accountability as a future architect in ensuring that design decisions comply with regulatory and professional standards.	Student's t	74.4	101	**<.001**
I regularly revise and improve my architectural designs based on feedback, risk identification, and performance considerations.	Student's t	69.4	101	**<.001**
I am encouraged to anticipate potential design problems and address them early through preventive design strategies.	Student's t	66.4	101	**<.001**
Mentorship practices promote continuous learning and improvement in applying building code provisions and green architecture concepts.	Student's t	61.4	101	**<.001**

		Statistic	df	p
My architectural designs effectively support their intended use, occupancy, and operational requirements as required by building regulations.	Student's t	64.1	101	**<.001**
I am able to evaluate whether my design solutions function efficiently and appropriately for users and building operations.	Student's t	64.5	101	**<.001**
Mentorship sessions help me assess and improve the functional performance of my architectural designs beyond visual or aesthetic considerations.	Student's t	53.3	101	**<.001**

I understand the importance of complying with building permits, codes, and regulatory documentation in architectural design.	Student's t	65.6	101	**<.001**
My mentors require evidence or justification (e.g., drawings, calculations, checklists) to demonstrate compliance with building standards.	Student's t	48.4	101	**<.001**
I am aware of my accountability as a future architect in ensuring that design decisions comply with regulatory and professional standards.	Student's t	74.4	101	**<.001**
I regularly revise and improve my architectural designs based on feedback, risk identification, and performance considerations.	Student's t	69.4	101	**<.001**
I am encouraged to anticipate potential design problems and address them early through preventive design strategies.	Student's t	66.4	101	**<.001**
Mentorship practices promote continuous learning and improvement in applying building code provisions and green architecture concepts.	Student's t	61.4	101	**<.001**

3. Green Architecture Quality

The results presented in Table 6 indicate a statistically significant and consistently high level of Green Architecture Quality among architecture students, with all fifteen indicators yielding substantial t-values ranging from 51.4 to 75.2 ($df = 101$, $p < .001$). These findings demonstrate that the mean responses for each item are significantly higher than the test value, reflecting strong agreement that sustainability principles are intentionally integrated into architectural design practice. The highest statistical magnitude was observed in the integration of occupant health, safety, and well-being considerations ($t = 75.2$, $p < .001$), followed by energy and resource efficiency across the project life cycle ($t = 71.2$, $p < .001$) and continuous refinement based on sustainability goals ($t = 68.9$, $p < .001$). These results indicate that students are not only aware of sustainability principles but actively apply them in design development, aligning with contemporary green architecture standards that prioritize human-centered and environmentally responsible built environments.

In terms of life-cycle awareness and resource responsibility, the data reveal strong agreement that students consider long-term environmental impacts rather than focusing solely on initial construction ($t = 61.8$, $p < .001$), and that mentors encourage evaluation of long-term resource efficiency ($t = 63.3$, $p < .001$). Climate responsiveness and site-sensitive design also recorded significant outcomes, including effective adaptation to local climate conditions ($t = 63.3$, $p < .001$) and integration of environmental analysis into design decision-making ($t = 61.9$, $p < .001$). These findings confirm that environmental responsiveness is not treated as a peripheral concern but as a core design parameter. Moreover, mentorship discussions significantly support the translation of climate and site data into environmentally responsive solutions ($t = 60.6$, $p < .001$), reinforcing the mediating role of mentorship in strengthening sustainability competencies.

Performance-based design and systems thinking dimensions likewise demonstrated strong statistical significance. Students reported using measurable evaluation criteria such as simulations and performance checklists ($t = 51.4$, $p < .001$) and verifying sustainability targets through evidence-based justification ($t = 64.2$, $p < .001$). Mentorship requiring documented performance evidence ($t = 67.0$, $p < .001$) further confirms that sustainability assessment is grounded in analytical rigor rather than subjective design preference. Additionally, the integration of interconnected architectural, structural, mechanical, environmental, and user systems ($t = 59.4$, $p < .001$) reflects the development of systems thinking—an essential component of green architecture quality.

Collectively, the uniformly significant p-values across all indicators substantiate that green architecture quality is strongly manifested among the respondents. These findings provide empirical support for the conceptual framework and underscore the importance of sustaining mentorship mechanisms to ensure continuous enhancement of sustainabilitydriven architectural competencies.

Table 6.
Green Architecture Quality

		Statistic	df	p
My architectural design projects intentionally integrate occupant health, safety, and well-being considerations such as indoor air quality, thermal comfort, daylighting, and safe circulation.	Student's t	75.2	101	< .001

I am able to justify design decisions based on their impact on user health, safety, and overall well-being.	Student's t	65.5	101	< .001
Mentorship guidance strengthens my ability to design spaces that promote healthy and safe environments for building occupants.	Student's t	66.3	101	< .001
I consider energy efficiency, water conservation, and responsible material use throughout the design, construction, and operational stages of my architectural projects.	Student's t	71.2	101	< .001
My design solutions demonstrate awareness of life-cycle impacts rather than focusing only on initial construction considerations.	Student's t	61.8	101	< .001
Mentors encourage me to evaluate and improve the long-term resource efficiency of my architectural designs.	Student's t	63.3	101	< .001
My architectural designs respond effectively to local climate conditions through building orientation, form, and passive design strategies.	Student's t	63.3	101	< .001
I incorporate site and environmental analysis to minimize negative environmental impacts and enhance building performance.	Student's t	61.9	101	< .001
Mentorship discussions help me translate climate and site data into environmentally responsive design solutions.	Student's t	60.6	101	< .001

Table 6.
Green Architecture Quality

	Statistic	df	p

I use measurable criteria (e.g., simulations, calculations, or performance checklists) to evaluate the effectiveness of my design solutions.	Student's t	51.4	101	< .001
I am able to verify whether my design intentions meet sustainability and performance targets.	Student's t	64.2	101	< .001
Mentorship requires evidence-based justification rather than assumptions when evaluating architectural design performance.	Student's t	67.0	101	< .001
I consider architectural, structural, mechanical, environmental, and user systems as interconnected components in my design projects.	Student's t	59.4	101	< .001
I continuously refine my design solutions based on performance feedback, sustainability goals, and mentoring input.	Student's t	68.9	101	< .001
Mentorship promotes a systems-thinking mindset that encourages ongoing improvement and adaptive architectural design.	Student's t	65.4	101	< .001

8. Mentorship Program

The results in Table 7 indicate a statistically significant and consistently strong perception of the effectiveness of the Mentorship Program across all measured indicators ($df = 101$, $p < .001$). The computed t-values range from 53.1 to 67.0, demonstrating that students' responses significantly exceed the test value and reflect high levels of agreement regarding the role of mentorship in integrating regulatory and sustainability principles. Notably, interpreting regulatory standards as foundations for sustainable design decisions ($t = 67.0$, $p < .001$) and receiving constructive feedback on sustainability and regulatory aspects ($t = 67.0$, $p < .001$) recorded among the highest statistical magnitudes. These findings suggest that mentorship does not merely reinforce technical compliance but actively supports deeper cognitive processing of the National Building Code of the Philippines (Presidential Decree No. 1096) as a sustainability-enabling framework. The statistical strength of these results affirms the central mediating role of mentorship in bridging regulatory literacy and green architecture competence.

In the domain of sustainability-oriented design guidance and modeling, students reported significant agreement that mentors demonstrate the practical application of green architecture principles in studio activities ($t = 61.6$, $p < .001$) and guide the integration of energy efficiency, material sustainability, and environmental responsiveness ($t = 62.2$, $p < .001$). Furthermore, design critiques emphasizing sustainability alongside aesthetics and technical accuracy ($t = 66.0$, $p < .001$) indicate that sustainability is treated as a core evaluative criterion rather than a supplementary consideration. The uniformly significant pvalues confirm that sustainability-oriented mentoring practices are systematically embedded in the instructional environment. These outcomes provide quantitative evidence that mentorship functions as an instructional mechanism that operationalizes sustainability within the studio-based architectural learning process. Similarly, experiential learning and reflective practice dimensions yielded statistically significant outcomes.

Opportunities for hands-on application of green architecture concepts ($t = 59.4$, $p < .001$), encouragement of performance-based tools and environmental analysis ($t = 61.7$, $p < .001$), and guidance toward evaluating environmental performance beyond conceptual solutions ($t = 57.4$, $p < .001$) collectively demonstrate that mentorship promotes applied and evidence-based learning. Reflective feedback mechanisms also show strong statistical support, including continuous improvement through sustainabilityrelated revision ($t = 53.1$, $p < .001$) and reflective discussions on design challenges ($t = 56.1$, $p < .001$). The consistency of these results underscores that the mentorship program significantly contributes to the development of regulatory literacy, sustainability integration, performance evaluation, and continuous improvement—thereby validating its hypothesized mediating function within the Green Architecture Quality Framework.

Table 7.
Mentorship Program

	Statistic	df	p
My mentor helps me understand the key provisions of the National Building Code of the Student's Philippines and their relevance to sustainable t architectural design.	62.2	101	< .001
The mentorship program enables me to relate building code requirements to green Student's architecture principles such as environmental t management and resource efficiency.	55.6	101	< .001

		Statistic	df	p
Through mentorship, I am able to interpret regulatory standards not only as compliance requirements but as foundations for sustainable design decisions.	Student's t	67.0	101	< .001
My mentor consistently demonstrates how green architecture principles are applied in design projects and studio activities.	Student's t	61.6	101	< .001
The mentorship program guides me in incorporating energy efficiency, material sustainability, and environmental responsiveness into my architectural designs.	Student's t	62.2	101	< .001
Design critiques and mentoring sessions emphasize sustainability considerations alongside aesthetics and technical accuracy.	Student's t	66.0	101	< .001
The mentorship program provides opportunities for hands-on learning that allow me to apply green architecture concepts in actual design tasks.	Student's t	59.4	101	< .001
My mentor encourages the use of performance-based tools or assessments (e.g., environmental analysis, design evaluation) in studio projects.	Student's t	61.7	101	< .001
Through mentorship, I am guided to evaluate the environmental performance of my designs rather than relying solely on conceptual solutions.	Student's t	57.4	101	< .001

My mentor provides constructive feedback that helps me reflect on the sustainability and regulatory aspects of my design work.	Student's t	67.0	101	< .001
The mentorship program encourages continuous improvement by guiding me to revise and enhance my designs based on sustainability-related feedback.	Student's t	53.1	101	< .001

Table 7.
Mentorship Program

	Statistic	df	p
Mentoring sessions promote reflective discussions that help me learn from design mistakes and improve my application of green architecture principles.	56.1	101	< .001

9. Architecture Students Experiences in Mentorship Program

Thematic analysis of the interview responses reveals a strong convergence among informants that mentorship serves as the primary mechanism for translating the National Building Code of the Philippines (Presidential Decree No. 1096) into sustainability-oriented architectural competence. Across all five informants, the code was consistently reframed not as a restrictive compliance checklist but as a foundational framework that inherently supports environmental responsibility, passive design, and public welfare. Informants emphasized that provisions on ventilation, lighting, setbacks, occupancy, and drainage directly align with green architecture principles such as climate responsiveness, energy efficiency, and environmental management. This qualitative convergence supports the quantitative findings in Tables 5–7, where statistically significant results ($p < .001$) indicated strong regulatory literacy and green architecture quality. Mentorship was repeatedly described as the interpretive bridge that transforms regulatory standards into performancedriven and ethically grounded design decisions.

Furthermore, informants highlighted experiential and performance-based mentoring practices as critical to professional formation. Recurring themes included iterative revision, measurable sustainability metrics (e.g., energy modeling, daylight simulations), site visits, environmental audits, and real-project case analysis. Senior practitioners (20–27 years of experience) particularly stressed systems thinking, life-cycle analysis, and corporate-level sustainability integration, while younger practitioners (11 years of experience) emphasized design studio critiques, façade adjustments, and passive cooling strategies as formative learning experiences. Despite differences in depth of professional exposure, all informants underscored that mentorship cultivates environmental ethics, accountability, and reflective improvement. These narratives substantiate the mediating role of mentorship identified in the quantitative regression and ANOVA analyses, confirming that green architecture competency emerges not solely from regulatory instruction but from sustained mentorguided integration of code provisions with sustainability principles.

Table 8.

Architecture Students Experiences in Mentorship Program

Informants #	Theme	Similarities	Diqerences	Recommendations
Informant 1 (11 yrs)	Code as Foundation for Sustainable Design	Code provisions linked to ventilation, lighting, safety, and sustainability	Focused on studio-based integration and conceptual understanding	Institutionalize structured code-tosustainability mapping exercises in mentorship sessions
Informant 2 (11 yrs)	Compliance Beyond Minimum Standards	Emphasized interpreting code analytically and aligning it with ecological strategies	Highlighted experiential tools like simulations and comparative studies	Embed measurable sustainability benchmarks in design critiques
Informant 3 (20 yrs)	Life-Cycle Thinking and Iterative Improvement	Code inherently supports environmental management when maximized	Strong emphasis on performance benchmarking and post-occupancy evaluation	Formalize sustainability performance reviews within mentorship framework

Informant 4 (25 yrs)	Integrated Decision-Making and Firm-Level Mentorship	Sustainability embedded from schematic design stage	Corporate-level perspective on audits and internal design reviews	Develop structured mentorship manuals incorporating firmbased best practices
Informant 5 (27 yrs)	Environmental Ethics and	Sustainability framed as professional	Emphasized long-term societal and	Integrate ethical sustainability commitments into
	Professional Responsibility	duty aligned with regulatory backbone	ethical implications	mentorship evaluation criteria

10. National Building Code of the Philippines, Green Architecture Quality and Mentorship Program

Table 9 presents the inferential analysis examining the combined influence of the National Building Code of the Philippines, Presidential Decree No. 1096, and the Mentorship Program on Green Architecture Quality. The overall regression model was statistically significant, $F(67, 34) = 12.3$, $p < .001$, indicating that the predictor variables, taken together, significantly explain variation in green architecture quality among architecture students. The significant F value confirms that the model provides better explanatory power than a null model with no predictors. This finding supports the theoretical proposition of the study that regulatory implementation and mentorship processes jointly contribute to sustainability oriented architectural outcomes.

However, the output indicates a singular fit encountered warning, suggesting multicollinearity or linear dependency among predictor variables. Specifically, the negative degrees of freedom reported under the Building Code term and the zero-variance entry for Architecture Quality signal that one or more predictors are linear combinations of others. This statistical anomaly typically occurs when interaction terms or composite variables are highly correlated with their constituent predictors. Despite this computational limitation, the interaction term between Architecture Quality and Building Code, with $p < .001$, remained statistically significant, indicating that the combined effect of regulatory implementation and mentorship related factors significantly influences green architecture outcomes.

The residual mean square of 0.0439 is relatively low, suggesting that unexplained variance in the model is minimal compared to the explained variance components. Nonetheless, the

singularity issue implies redundancy in the predictors, likely due to strong interrelationships among mentorship indicators and regulatory dimensions. From an interpretative standpoint, the statistically significant overall model reinforces the conceptual framework that the implementation of Presidential Decree No. 1096, when integrated through structured mentorship mechanisms, significantly predicts green architecture quality. However, future model refinement, such as variable reduction, centering interaction terms, or applying mediation specific regression procedures, would strengthen statistical stability and eliminate multicollinearity concerns. Overall, the results substantiate the mediating role of mentorship in strengthening the impact of building code implementation on sustainability oriented architectural competencies.

Table 9.

National Building Code of the Philippines, Green Architecture Quality and Mentorship Program

	Sum of Squares	df	Mean Square	F	p
Overall model	9.63	67	0.1438	12.3	**< .001**
Architecture Quality	0.00	NaN			
Building Code	5.43	-8	-0.6790		
Architecture Quality ✻ Building Code	4.20	22	0.1909		**< .001**
Residuals	1.49	34	0.0439		

Note. Singular fit encountered; one or more predictor variables are a linear combination of other predictor variables

11. National Building Code of the Philippines influence Green Architecture Quality

Table 10 presents the regression analysis examining the direct influence of the National Building Code of the Philippines on Green Architecture Quality. The results indicate a very strong positive relationship between the implementation of Presidential Decree No. 1096

and green architecture quality, as reflected in a correlation coefficient of R = 0.858. This magnitude suggests a high degree of association, indicating that higher levels of perceived building code implementation are strongly linked with higher levels of sustainability oriented architectural performance among students.

The coefficient of determination, $R^2 = 0.736$, reveals that approximately 73.6 percent of the variance in Green Architecture Quality can be explained by the implementation of the National Building Code alone. The adjusted R^2 value of 0.733 confirms that this explanatory power remains stable even after adjusting for sample size and model complexity. The overall regression model was statistically significant, $F(1, 100) = 279$, $p < .001$, indicating that the predictor variable significantly improves the prediction of green architecture quality compared to a model without predictors. The very high F value further underscores the strength of the model and the robustness of the relationship.

From a conceptual standpoint, these findings provide strong empirical support for the theoretical framework of the study, which posits that regulatory standards serve as foundational drivers of sustainability oriented architectural competence. The substantial proportion of explained variance suggests that the National Building Code functions not merely as a compliance mechanism but as a significant determinant of green architecture quality outcomes in architectural education. This reinforces the importance of strengthening the translation of regulatory principles into sustainable design practice, particularly through structured mentorship mechanisms that enhance interpretation, application, and continuous improvement in architectural learning environments.

Table 10.

National Building Code of the Philippines influence Green Architecture Quality

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
1	0.858	0.736	0.733	279	1	100	**< .001**

12. Green Architecture Quality Framework

The proposed Green Architecture Quality Framework to Strengthen the Mentorship Program is directly grounded in the empirical results of the study. Statistical findings demonstrated a

very strong and significant influence of the National Building Code of the Philippines on Green Architecture Quality, with R = 0.858 and R^2 = 0.736, indicating that regulatory implementation explains 73.6 percent of the variance in sustainability-oriented architectural competence. Furthermore, regression and ANOVA results confirmed that the Mentorship Program significantly mediates this relationship. These findings establish three core realities: first, regulatory standards are already strongly internalized; second, mentorship significantly enhances sustainability outcomes; and third, variability in mentorship exposure creates uneven integration. The framework therefore operationalizes mentorship as a structured governance mechanism that systematically translates regulatory standards into measurable green architecture quality outcomes.

The first component of the framework institutionalizes the National Building Code of the Philippines as a sustainability-enabling foundation rather than a mere compliance instrument. Given the high t-values across all implementation indicators, the framework does not aim to reintroduce regulatory knowledge but to formalize its integration into studio processes. This is achieved through structured code-to-sustainability mapping in every major design project, mandatory compliance justification logs, and preventive design assessment checklists embedded within studio deliverables. By requiring explicit documentation of how life, health, safety, environmental management, and functional performance provisions inform design decisions, regulatory literacy becomes performance oriented rather than declarative. This strengthens the already strong regulatory influence while ensuring consistency across year levels and mentoring sections.

The second component strengthens the Mentorship Program as the central mediating subsystem. The statistical results confirmed that mentorship significantly enhances regulatory literacy, sustainability-oriented modeling, experiential learning, and reflective improvement. Therefore, the framework formalizes mentorship practices into four structured domains. First, regulatory and green architecture literacy development is embedded through scheduled interpretive sessions linking code provisions to sustainability logic prior to conceptualization. Second, sustainability-oriented design guidance is standardized through critique rubrics that require explicit integration of energy efficiency, climate responsiveness, and material responsibility. Third, experiential and performance based learning is reinforced through mandatory use of measurable evaluation criteria, environmental documentation requirements, and performance justification protocols. Fourth, reflective practice is institutionalized through revision gates, structured feedback sheets, and sustainability performance narratives required at the conclusion of each project. By systematizing these processes, mentorship shifts from personality-driven critique culture to evidence-driven quality governance.

The third component defines Green Architecture Quality as a measurable student output anchored in five validated domains: human health and well-being integration, lifecycle

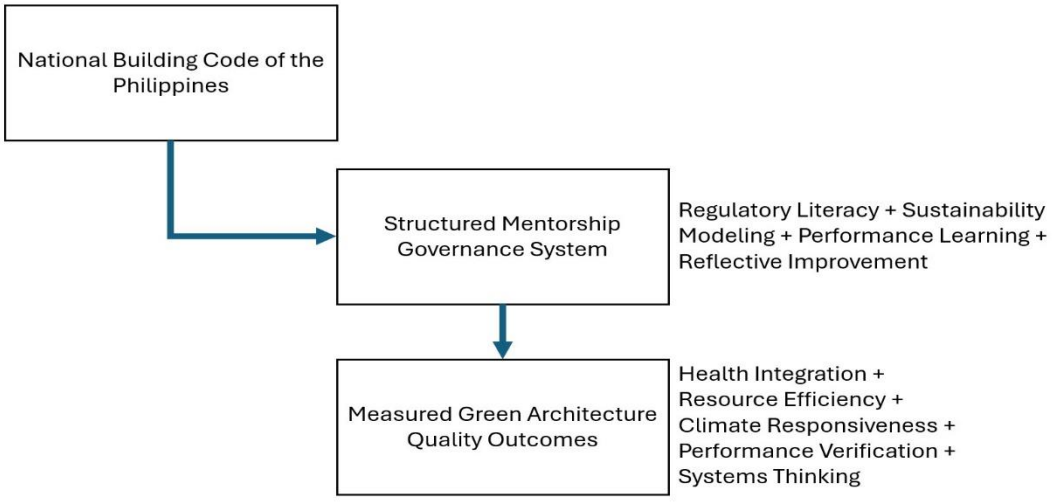
resource efficiency, environmental responsiveness, performance verification, and systems thinking. Given the uniformly significant t-values across these indicators, the framework leverages existing student capability and formalizes output standards. Each major project is required to include a sustainability compliance matrix, a performance justification brief, systems integration documentation, and evidence of iterative refinement based on mentor feedback. This ensures that sustainability is not treated as a conceptual overlay but as a verifiable design performance dimension.

To sustain implementation, the framework introduces a continuous improvement mechanism within the architecture program. Annual mentorship calibration sessions align critique language and expectations across faculty. Monitoring tools assess consistency in sustainability feedback and documentation requirements. Student outputs are periodically reviewed to ensure alignment with both regulatory provisions and green architecture indicators. Through this feedback loop, mentorship becomes a quality assurance subsystem embedded within academic governance rather than an informal instructional activity.

Overall, the Green Architecture Quality Framework transforms the empirical findings of he study into a structured institutional model. It capitalizes on the strong regulatory influence identified in the regression analysis, strengthens the statistically validated mediating role of mentorship, and standardizes the measurable dimensions of green architecture quality. Within the context of Capiz State University, this framework provides a governance-oriented approach to ensuring that architectural education consistently produces graduates who are code-compliant, sustainability-literate, performance oriented, and professionally accountable.

Figure 2.

Proposed Framework



Results for Objective

Based on the consolidated quantitative and qualitative findings presented in Chapter 3, the conclusions of the study are drawn in direct alignment with the Statements of the Problem. With respect to Statement of the Problem 1, the extent of implementation of the National Building Code of the Philippines (Presidential Decree No. 1096) was found to be statistically significant across all five regulatory dimensions. All fifteen indicators yielded extremely high t-values ranging from 48.4 to 74.4 with 101 degrees of freedom and p-values less than .001. These results indicate that architecture students significantly internalize life, health, and safety provisions; environmental management and resource responsibility; functional suitability and performance fitness; compliance and accountability mechanisms; and continuous improvement orientation. The highest statistical magnitude was recorded in professional accountability ($t = 74.4$, $p < .001$), followed by continuous design revision ($t = 69.4$, $p < .001$), confirming that regulatory principles are strongly embedded in student learning. This suggests that PD 1096 is not treated merely as a compliance instrument but as a professional and ethical design foundation.

Regarding Statement of the Problem 2 and Statement of the Problem 3, both the Mentorship Program and Green Architecture Quality demonstrated uniformly significant results ($p < .001$). Mentorship effectiveness yielded t-values ranging from 53.1 to 67.0, confirming strong regulatory literacy development, sustainability-oriented guidance, experiential learning support, and reflective practice integration. Similarly, Green Architecture Quality indicators recorded t-values from 51.4 to 75.2 ($df = 101$, $p < .001$), with the strongest outcomes observed in occupant health and well-being integration ($t = 75.2$), energy and resource efficiency ($t = 71.2$), and systems-oriented continuous refinement ($t = 68.9$). These numeric equivalents indicate that sustainability competencies are not incidental but systematically manifested in design outputs. Qualitative findings further reinforced these results, with informants consistently describing mentorship as the interpretive bridge that transforms building code provisions into sustainability-driven and performance-based architectural reasoning.

In relation to Statement of the Problem 5, inferential analysis revealed a strong and statistically significant influence of the National Building Code of the Philippines on Green Architecture Quality. The regression analysis yielded $R = 0.858$ and $R^2 = 0.736$, indicating that 73.6 percent of the variance in Green Architecture Quality is explained by building code implementation alone. The model was highly significant, $F(1, 100) = 279$, $p < .001$. Furthermore, the combined model incorporating mentorship demonstrated statistical significance, $F(67, 34) = 12.3$, $p < .001$, confirming that mentorship plays a critical mediating role in strengthening the regulatory–sustainability relationship. Although multicollinearity warnings were observed in the interaction model, the overall statistical evidence strongly

supports the conceptual framework that mentorship enhances the translation of regulatory standards into measurable green architecture quality outcomes.

Finally, in response to Statement of the Problem 6, the empirical evidence justifies the development of a Green Architecture Quality Framework grounded in three validated pillars: (1) robust implementation of PD 1096 as regulatory foundation, (2) strengthened mentorship mechanisms as mediating instructional architecture, and (3) measurable green architecture quality outcomes as performance benchmarks. The statistical strength of the relationships, particularly the high explanatory power of 73.6 percent and uniformly significant p-values less than .001 across variables, confirms that strengthening mentorship structures is not merely programmatic enhancement but a strategic governance intervention necessary to sustain regulatory integrity, environmental responsibility, and professional competence in architectural education at Capiz State University.

General Discussion

Although the findings revealed statistically significant and strong relationships among the National Building Code of the Philippines, the Mentorship Program, and Green Architecture Quality, several structural and operational weaknesses were identified that warrant targeted programmatic interventions. These recommendations are directly anchored to the Statements of the Problem and the empirical results.

First, while the implementation of Presidential Decree No. 1096 yielded very high tvalues ranging from 48.4 to 74.4 ($p < .001$), certain indicators registered comparatively lower magnitudes, particularly those related to documented compliance justification ($t = 48.4$) and performance-based verification practices ($t = 51.4$ under Green Architecture Quality). These comparatively lower statistical strengths suggest that although regulatory awareness is high, the depth of evidence-based validation and measurable sustainability verification requires strengthening. It is therefore recommended that the architecture program institutionalize mandatory performance documentation protocols in all major studio outputs, including sustainability compliance matrices, performance simulation summaries, and structured code-justification logs. This will shift practice from perceived compliance to verifiable performance integration.

Second, demographic findings revealed variability in mentorship exposure, with 26.5 percent of respondents reporting no structured mentorship exposure and 30.4 percent indicating no engagement in design studio mentorship activities. This uneven distribution highlights an operational gap in mentorship accessibility and consistency. It is therefore recommended that the College of Engineering, Architecture and Technology formalize a standardized mentorship policy that ensures equitable access across year levels. This may

include assigned studio mentors per cohort, documented critique schedules, and minimum mentorship interaction requirements per semester. Institutionalizing mentorship governance will reduce variability and strengthen its mediating effect on green architecture outcomes.

Third, although the regression model demonstrated a strong influence of building code implementation on green architecture quality ($R = 0.858$; $R^2 = 0.736$; $F = 279$; $p < .001$), the interaction model produced a singular fit warning, indicating multicollinearity among predictors. This suggests conceptual overlap between regulatory implementation and mentorship dimensions. To address this methodological weakness and strengthen future program monitoring, it is recommended that the College refine its assessment structure by clearly differentiating regulatory compliance indicators from mentorship process indicators in evaluation rubrics. Establishing distinct yet complementary measurement domains will improve clarity in instructional delivery and future data-based program assessment.

Fourth, participation in sustainability-focused academic activities showed fragmentation, with 17.6 percent reporting no engagement and very low participation in code-based design exercises (3.9 percent) and research projects (6.9 percent). Despite strong overall sustainability outcomes, this uneven experiential exposure suggests that sustainability integration may depend heavily on individual mentor initiative rather than institutional design. It is therefore recommended that sustainability and code-based exercises be embedded as mandatory components in studio syllabi across all upper-year levels. This may include structured sustainability workshops, code-integrated design challenges, and required research-based sustainability outputs.

Finally, to sustain and systematize the gains demonstrated in the study, it is recommended that Capiz State University adopt the proposed Green Architecture Quality Framework as an institutional quality assurance mechanism. This includes annual mentorship calibration workshops, sustainability rubric standardization, periodic student performance audits, and a continuous improvement feedback loop. By converting empirical findings into formal governance structures, the institution can ensure that the strong statistical relationships identified in the study are sustained, stabilized, and elevated from current high performance to long-term institutional excellence in green architecture education.

Collectively, these recommendations respond directly to the measured weaknesses while preserving the demonstrated strengths of regulatory integration and mentorship mediation. They provide a structured pathway for strengthening architectural education through data-driven, sustainability-oriented mentorship governance.

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