

PROFESSIONAL AWARENESS AND ROLE PERCEPTION BETWEEN LANDSCAPE ARCHITECTS AND TOWN PLANNERS: IMPLICATIONS FOR INTERDISCIPLINARY SYNERGY IN KADUNA STATE, NIGERIA

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Abstract

Since effective urban development now places a greater demand on cooperation between professionals in the built environment whose areas of responsibility overlap when dealing with complex spatial and environmental problems, this study examined how landscape architects and town planners in Kaduna State, Nigeria, understand each other's professional roles, their views on the extent of professional overlap, and the opportunities for interdisciplinary synergy. It used a quantitative, exploratory cross-sectional survey approach. The data were gathered by means of a structured online questionnaire that was distributed through professional WhatsApp groups. A total of sixty valid responses were obtained from landscape architects and town planners who are working in Kaduna State. The data were analysed using descriptive statistics, such as frequencies and percentages. The results showed a generally high level of professional awareness: 86.7% of the respondents correctly identified the main functions of landscape architecture and 76.7% were able to recognise the core functions of town planning. Furthermore, 51.7% of the participants regarded the overlap between the two professions as moderate, 30.0% saw it as high, and 18.3% considered it to be low. The main obstacles to collaboration were fragmented institutions and regulations, a lack of opportunities for inter-professional learning, and communication gaps. The study concludes that there is a great deal of potential for interdisciplinary collaboration, but this will depend on more structured engagement, clearer definitions of roles, joint learning, and the carrying out of collaborative projects.

Keywords: Interdisciplinary synergy; Landscape Architecture; Professional awareness; Role perception; Town Planning

1.0 Introduction

Today's built environment faces linked challenges from urbanization, changes in land use, and climate risks, which call for multidisciplinary solutions. Urban areas are complex systems where environmental, spatial, and human factors interact at different levels, making collaboration necessary (Gallotti et al., 2021). Tackling these issues requires specialized knowledge and ways to bring expertise together. Working across disciplines is essential in urban development, especially where planning, management, design, and infrastructure meet (Abubakar & Aina, 2019; Hooimeijer et al., 2022).

Landscape architecture and town planning are distinct yet interrelated fields. Town planning focuses on spatial development organization, land use, infrastructure, and regulations, while landscape architecture emphasizes landscape design and conservation, considering ecological processes and human interactions. Their collaboration is often essential in areas like green infrastructure, public spaces, urban regeneration, environmental management, ecological connectivity, climate adaptation, and urban landscape design, where both professions



contribute critical expertise (Gkoltsiou & Forczek-Brataniec, 2024; Mell, 2022). Nature-based solutions enhance urban resilience, promoting closer integration of landscape and planning perspectives (Sommese, 2024).

Professional integration is crucial in Nigeria's quickly evolving urban environments. Rapid urban growth leads to pressures on land, housing, infrastructure, and governance, resulting in complex planning issues that fragmented interventions cannot solve. Effective urban development relies on built environment professionals understanding each other's expertise and coordinating for shared spatial goals (Enyew et al., 2026).

Kaduna State is a key area to study professional relationships due to its expanding urban regions and varied environmental, social, and spatial conditions, especially seen in Kaduna metropolis's growth and land-use changes (Abdullahi et al., 2025). Transformation requires coordinated efforts in spatial planning, environmental management, public-space provision, and landscape development. It impacts land use, ecological conditions, and environmental quality, emphasizing the need for collaboration among professionals managing the built and natural environments.

Collaboration relies on communication and shared learning, as highlighted by contemporary landscape sustainability research, which focuses on integrating landscape approaches with broader planning processes through reciprocal understanding (Sommese, 2024). Similarly, Interdisciplinary approaches in built environment education enhance professionals' collaboration and understanding of sustainability across different disciplines (Butt & Dimitrijević, 2022). The key issue is how practitioners perceive overlapping professional roles, whether as collaboration opportunities or competitive threats.

In Nigeria's built environment, town planning is governed by TOPREC, while landscape architecture has its own structures. This professional differentiation leads to distinct responsibilities but not always clear practice boundaries. Urban development frequently intersects various disciplines, such as public-space planning, green infrastructure, environmental rehabilitation, landscape conservation, urban regeneration, and climate-responsive development. The success of interdisciplinary approaches relies on professionals acknowledging the complementary nature of their roles and responsibilities (Sommese, 2024).

Two key concepts in understanding the relationship between professions are professional awareness and role perception. Professional awareness involves knowledge of another profession’s responsibilities, while role perception focuses on how practitioners view these responsibilities, whether as complementary, overlapping, competitive, or conflictual. It’s crucial to differentiate them, as greater awareness doesn’t ensure positive collaborative perceptions. A practitioner may understand another's roles but still feel competition. Conversely, recognizing complementary skills might foster collaboration, yet it doesn’t guarantee supportive institutional practices for sustained interdisciplinary efforts (Bhagavathula et al., 2021).

Interdisciplinary collaboration in Nigeria remains under-researched, particularly in relation to how built-environment professionals understand each other’s roles at the sub-national level. Existing studies have examined professional identity, collaboration barriers, and approaches to urban development (Abubakar & Aina, 2019;



Hooimeijer et al., 2022). However, limited attention has been given to the professional knowledge and perceptions that shape relationships between landscape architects and town planners, especially regarding role overlap and opportunities for interdisciplinary synergy. This gap suggests that collaboration is influenced not only by institutional arrangements but also by practitioners' perceptions of professional expertise, boundaries, and responsibilities. Examining these dimensions at the state level therefore provides a more nuanced understanding of interdisciplinary relationships and challenges the assumption that professional attitudes and working conditions are uniform across Nigeria. The study specifically seeks to: evaluate landscape architects' and town planners' awareness of each other's professional roles. Examine practitioners' perceptions of interdisciplinary collaboration and areas of professional overlap. Identify the challenges and opportunities for strengthening interdisciplinary synergy between the two professions.

The study examines the professional dynamics between landscape architects and town planners in Kaduna State, providing empirical evidence on interdisciplinary practice within Nigeria's built environment. It emphasizes understanding, role perception, and collaboration opportunities to tackle complex spatial and environmental challenges in urban development instead of merely advocating for collaboration.

2.0 Methodology

Research Design

The study utilized a quantitative, exploratory cross-sectional survey design to assess professional awareness and role perception between landscape architects and town planners in Kaduna State, Nigeria. It aimed to gather insights directly from practitioners regarding their understanding of each other's roles and interdisciplinary opportunities. Data collection was conducted at a single point in time, yielding a snapshot of professional perceptions. The focused geographical area allowed for an in-depth examination, although findings may not represent all professionals in Northern Nigeria (Ojobo et al., 2024).

Study Population and Sampling

The study population comprised registered landscape architects and town planners practising in Kaduna State, Nigeria, selected because of their complementary roles in planning and managing the built and natural environment. Their overlapping professional responsibilities provide a basis for examining awareness, role perception, and potential interdisciplinary collaboration.

Given the absence of a comprehensive, publicly accessible sampling frame of eligible landscape architects and town planners in Kaduna State, a non-probability sampling approach was adopted. Participants were recruited through professional WhatsApp groups comprising registered practitioners. The questionnaire was distributed through these networks with a brief explanation of the study and an invitation to participate voluntarily. Respondents self-selected by completing the questionnaire. The sampling strategy is therefore characterised as purposive, network-mediated voluntary-response sampling, as it targeted specific professional groups, utilised established professional communication networks, and allowed eligible individuals to opt into the study (Campbell et al., 2020).

A total of 60 valid responses were obtained. The sample represents professionals who chose to participate rather than a statistically random selection of the wider professional population. Consequently, the findings should be interpreted



as exploratory rather than statistically representative. In particular, the non-probability approach may introduce coverage and self-selection biases, potentially favouring professionals who are more engaged with professional networks or the study topic. Nevertheless, the approach was considered appropriate for exploring an under-researched interprofessional relationship within a specialised professional context where comprehensive access to the target population was difficult.

The final dataset comprised 60 completed questionnaires from registered landscape architects and town planners in Kaduna State. The respondents' professional affiliations and demographic characteristics are presented in the Results section. Rather than seeking statistical generalisation to the entire professional population, the study uses the sample to identify patterns in professional awareness and role perception, consistent with its exploratory objective of examining interprofessional dynamics.

Data Collection and Procedure

Data were gathered via an electronically administered structured questionnaire aligned with study objectives. It included questions on respondents' demographics, awareness of other professions' functions, perceptions of roles and overlaps, interdisciplinary interactions, barriers to collaboration, and opportunities for synergy. The mainly closed-ended and Likert-type questions enabled quantitative analysis, ensuring consistent response categories for comparisons. The questionnaire was informed by literature on interdisciplinary collaboration, emphasizing the distinction between awareness of functions and perceptions of professional relationships (Gaworski & Daśko, 2026).

The study explored four dimensions: professional awareness, role perception, perceived professional overlap, and interdisciplinary synergy. This distinction clarifies that awareness, perception, and collaboration are not synonymous, allowing for varied levels of interaction and understanding.

Validity and Reliability of the Instrument

The questionnaire underwent thorough review for clarity, relevance, and alignment with study objectives, emphasizing content and face validity (Dalowar et al., 2025). A preliminary exercise with similar professionals identified ambiguous questions, evaluated response clarity, assessed question sequence logic, and addressed challenges in completing the electronic format, aiming to reduce measurement error.

Data Analysis

Completed questionnaires were quantitatively coded and analyzed. Descriptive statistics like frequencies and percentages summarized respondents' demographics, professional characteristics, and patterns related to awareness, role perception, perceived overlap, and interdisciplinary synergy. Responses were cross-tabulated based on professional affiliation to compare landscape architects and town planners, assessing similarities or differences in their role understanding. Where applicable, statistical methods were applied to explore associations between professional affiliation and awareness or perception measures, guided by variable measurement levels, sample distribution, and statistical assumptions. Due to the non-probability sample, findings reflect associations within the sample, not population estimates.

Ethical Considerations

Participation in the study was voluntary, with respondents aware of the research purpose and nature before completing the questionnaire. It

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was not tied to professional benefits or penalties, allowing respondents the freedom to decline. Confidentiality and anonymity were prioritized during the online survey, only requiring personally identifying information when necessary. Individual identities were not disclosed in findings presentations. Data were used strictly for academic research.

Methodological Limitations

The sampling procedure in this study is crucial for interpreting the findings. Recruitment through professional WhatsApp groups efficiently accessed target communities but did not ensure equal selection probability for all landscape architects and town planners in Kaduna State. Participation was voluntary, risking self-selection bias, with more active or interested professionals likely to respond. Consequently, the findings reflect exploratory evidence from 60 participants rather than statistically representative estimates for the entire population. The study aims to identify patterns of professional awareness and role perception and generate empirical insights for further interdisciplinary research in Nigeria's built environment. This limitation frames the study's scope and underscores the need for larger, probability-based sampling in future research.

3.0 Results and Discussion

Results

The study obtained 60 valid responses from registered landscape architects and town planners practising in Kaduna State. As shown in Figure 1, town planners constituted 52% of the respondents, while landscape architects accounted for 48%. This relatively balanced representation provides a sound basis for examining similarities and differences in the two professional groups' awareness and perceptions of their respective roles.

Regarding professional experience, 46.7% of respondents had between 5 and 10 years of professional practice, while 28.3% had more than 10 years' experience. The remaining respondents had less than five years of professional experience. Thus, a substantial proportion of the sample had considerable professional exposure and was likely to have encountered contexts requiring interaction with other built-environment disciplines.

Furthermore, 63.3% of respondents reported a high level of familiarity with the professional and statutory functions of both landscape architects and town planners. This provides an important baseline for interpreting the subsequent findings on professional awareness, perceived role overlap, and interdisciplinary synergy.

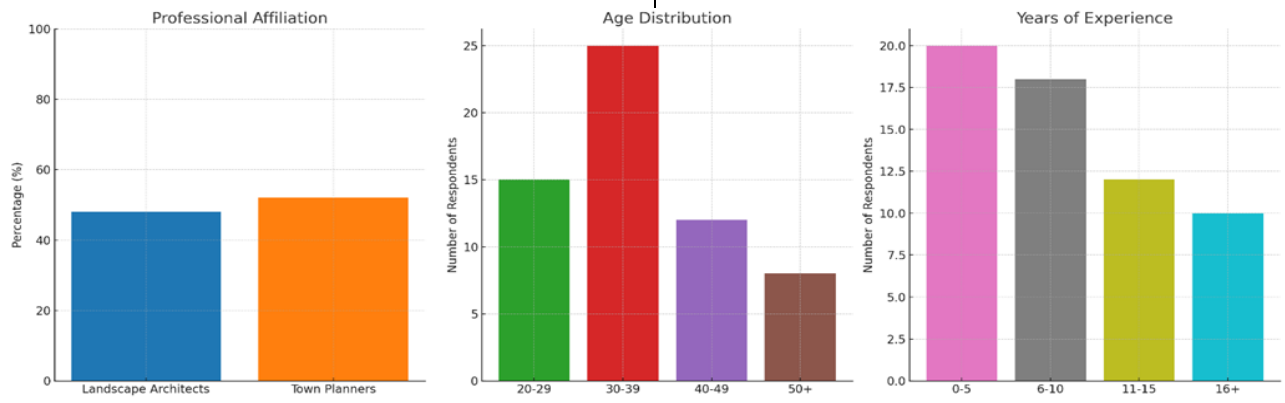


Figure 1: Distribution of respondents by professional affiliation, age, and years of professional experience. Source: Field Survey, 2025



Awareness of Professional Roles

The findings indicate a generally high level of awareness of the principal functions of the two professions among respondents. Specifically, 86.7% correctly identified landscape architecture as concerned with the planning and design of outdoor environments and their ecological relationships, while 76.7% recognised town planning as concerned with the organisation and regulation of land uses and spatial development.

These findings suggest that most respondents possessed at least a basic understanding of the professional domain of the other discipline. Such awareness is important because knowledge of professional responsibilities provides a foundation for recognising areas where disciplinary competencies can complement one another.

The responses further suggest that previous professional interaction was associated with greater familiarity with areas of functional overlap. Respondents who had encountered the other profession through collaborative or project-related activities appeared more likely to recognise the complementary nature of their respective responsibilities. However, this observation should be interpreted as a pattern emerging from the survey responses rather than as evidence of a statistically established causal relationship.

Perceptions of Professional Overlap and Interdisciplinary Synergy

The findings indicate that respondents generally recognised a functional intersection between landscape architecture and town planning. As shown in Table 1, 31 respondents (51.7%) perceived a moderate degree of overlap between the two professions, while 18 (30.0%) perceived a high degree and 11 (18.3%) a low degree of overlap. The predominance of moderate and high perceptions suggests that respondents do not view landscape architecture and town planning as entirely distinct fields of practice. Rather, there is substantial recognition of shared areas of professional concern and interaction within the built environment.

Responses regarding the implications of this professional overlap were also broadly supportive of collaboration, although the available data require further verification. Specifically, 23 respondents associated professional overlap with increased synergy, while 27 perceived it as having the potential to generate conflict. Because the remaining responses and their coding have not been fully verified against the original questionnaire, definitive percentage distributions should not yet be reported. Accordingly, interpretations concerning the relationship between professional overlap, synergy, and conflict should be treated with caution until the underlying frequency data are confirmed.

Overall, the findings highlight an important distinction: although respondents recognise that professional boundaries between landscape architecture and town planning intersect, such overlap does not produce a uniform perception of its consequences. Instead, it may be understood as creating both opportunities for interdisciplinary synergy and potential for professional conflict.

Table *1: Perceived* Degree of Professional Overlap and Perception of Its Implications

Perceived degree of overlap	Frequency	Percentage
High overlap	18	30.0%
Moderate overlap	31	51.7%
Low overlap	11	18.3%
Total	60	100.0%

Source: Field Survey, 2025.



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Perceived Barriers to Interdisciplinary Collaboration

Respondents identified several factors that could constrain effective collaboration between landscape architects and town planners in Kaduna State. Three broad categories emerged from the responses: institutional and regulatory fragmentation, limited opportunities for inter-professional learning, and communication gaps.

1. Institutional and regulatory fragmentation was identified as an important constraint. The separation of professional responsibilities and institutional procedures may make it difficult to establish clear mechanisms for joint involvement in projects where planning and landscape considerations intersect.

2. Respondents also identified limited opportunities for formal interaction and interprofessional training. The absence of sustained opportunities for professionals to learn about the scope and methods of other disciplines may reinforce disciplinary boundaries and reduce familiarity with complementary areas of expertise.

3. Communication gaps constituted another important barrier. Where professionals have limited opportunities for regular communication, areas of shared responsibility may be poorly understood, potentially resulting in duplication, misunderstanding, or perceptions of professional encroachment.

These findings indicate that barriers to interdisciplinary synergy are not necessarily attributable to a lack of professional competence. Rather, they may arise from the institutional and communicative environments within which professional practice occurs.

Opportunities for Strengthening Interdisciplinary Synergy

Despite the identified barriers, respondents recognised several opportunities for improving professional collaboration. The most prominent suggestions included joint professional workshops and forums, collaborative project implementation, and clearer articulation of professional roles and responsibilities.

1. Joint workshops and professional forums were identified as mechanisms through which practitioners could develop a better understanding of the knowledge, methods, and responsibilities of the other profession. Such platforms could also create opportunities for professional networking beyond individual project-based encounters.

2. Respondents further identified collaborative project implementation as an important avenue for translating professional awareness into practice. Joint involvement in projects relating to public open spaces, green infrastructure, environmental management, urban regeneration and related areas could enable landscape architects and town planners to contribute their respective expertise at appropriate stages of the development process.

3. Clearer definition and communication of professional roles was another recurring opportunity. Rather than treating areas of overlap solely as boundaries to be defended, greater clarity regarding respective competencies could help distinguish between complementarity and duplication. This could create a basis for more constructive professional relationships.



Summary of Results

The principal findings can be summarised as follows:

1. The study obtained 60 valid responses, comprising 52% town planners and 48% landscape architects.
2. A substantial proportion of respondents reported several years of professional experience, with 46.7% having 5–10 years and 28.3% having more than 10 years of practice.
3. Respondents demonstrated generally high awareness of the principal functions of the two professions, with 86.7% correctly identifying the core focus of landscape architecture and 76.7% correctly identifying the principal function of town planning.
4. Most respondents perceived at least a moderate degree of professional overlap, with 51.7% reporting moderate overlap and 30.0% reporting high overlap.
5. Institutional fragmentation, limited inter-professional learning opportunities, and communication gaps emerged as important perceived barriers to collaboration.
6. Joint professional forums, collaborative projects, and clearer definitions of professional responsibilities were identified as important opportunities for strengthening interdisciplinary synergy.

Taken together, the findings indicate that the participating professionals generally recognise the relevance of one another's expertise, but that positive awareness alone may not be sufficient to produce sustained interdisciplinary collaboration.

Discussion

Professional Awareness as a Foundation for Interdisciplinary Synergy

The high level of awareness observed among the respondents provides an encouraging starting point for interdisciplinary collaboration between landscape architects and town planners in Kaduna State. The finding that 86.7% of respondents correctly recognised the principal focus of landscape architecture and 76.7% recognised the core function of town planning suggests that the two professional groups possess considerable basic knowledge of one another's areas of responsibility.

This finding supports the broader argument that complex built-environment problems require professionals to recognise knowledge beyond the boundaries of their own disciplines. Urban development increasingly involves relationships between land-use planning, environmental systems, public space, infrastructure and landscape processes that cannot be adequately addressed through isolated professional interventions (Gallotti et al., 2021; Hooimeijer, 2022).

However, the finding should not be interpreted as evidence that effective interdisciplinary collaboration is already established. Awareness is a necessary condition for collaboration, but it is not equivalent to collaboration itself. A practitioner may understand what another profession does without necessarily knowing when or how that expertise should be incorporated into a project. The distinction between professional awareness and actual collaborative practice is therefore important in interpreting the findings.

The result also suggests that practical exposure may have an important role in developing professional understanding. Respondents with



previous experience of interacting with members of the other profession appeared to demonstrate greater recognition of areas of overlap. This observation is consistent with literature emphasising shared learning and interaction as mechanisms through which professionals can develop a more integrated understanding of complex built-environment problems (Sommese, 2024).

Perceived Professional Overlap: Competition or Complementarity?

One of the most significant findings is that 81.7% of respondents perceived either moderate or high overlap between landscape architecture and town planning. This is important because it challenges a strictly compartmentalised understanding of professional practice.

The perceived overlap is understandable given the range of contemporary urban issues in which both professions may become involved. Land-use planning, public-space development, green infrastructure, environmental management and urban regeneration can involve both spatial planning and landscape-based knowledge. The growing prominence of nature-based approaches to urban development further increases the potential for interaction between planning and landscape disciplines (Sommese, 2024; Gkoltsiou & Forczek-Brataniec, 2024).

Nevertheless, overlap should not automatically be regarded as professional duplication. In interdisciplinary practice, different professions can address the same problem from different knowledge perspectives. Town planning may establish the broader spatial and regulatory framework, while landscape architecture can contribute more detailed expertise concerning landscape structure, ecological relationships, public-space design and environmental performance. The issue is therefore not necessarily whether overlap exists, but whether the overlap is managed as complementarity or interpreted as competition.

This distinction is particularly relevant to the present study. The findings suggest that professionals recognise areas of intersection, but the perception of what that intersection means requires further attention. Where overlap is understood as complementary expertise, it can provide a basis for synergy. Where it is interpreted as encroachment upon professional jurisdiction, it may generate conflict and discourage collaboration.

Institutional and Communication Barriers

The identification of fragmented institutional arrangements, limited interprofessional training and communication gaps indicates that barriers to collaboration extend beyond individual professional attitudes.

The finding concerning institutional fragmentation is particularly important. Interdisciplinary collaboration requires more than goodwill among individual practitioners; it also requires organisational and procedural structures that create opportunities for professionals to interact. Where professional responsibilities are administered through separate institutional arrangements, collaboration may become dependent on individual initiative rather than being incorporated systematically into project processes.

Communication is similarly important. Even where professionals have a reasonable understanding of each other's functions, limited communication can result in poor coordination and misunderstanding. This reinforces the argument that interdisciplinary practice involves not simply the accumulation of disciplinary knowledge but the development of mechanisms



through which that knowledge can be exchanged and integrated.

The findings are broadly consistent with studies that identify institutional, educational and organisational factors as important influences on interdisciplinary collaboration (Hooimeijer, 2022). They also support the wider systems perspective in which urban problems are understood as interconnected rather than as isolated technical problems. From this perspective, professional fragmentation can become a constraint when the governance and delivery of urban development fail to reflect the interconnected nature of the problems being addressed.

Joint Learning and Professional Engagement

The respondents' emphasis on joint workshops and professional forums provides an important practical implication of the study. If awareness of professional roles can be strengthened through interaction, then structured opportunities for professionals to encounter one another outside individual project situations could help develop a stronger culture of collaboration.

Such engagement could take several forms, including continuing professional development programmes, interdisciplinary seminars, joint workshops, professional conferences and collaborative design or planning exercises. These activities would not require the two professions to abandon their distinct professional identities. Instead, they could help practitioners understand where disciplinary competencies are different, where they overlap, and where they can be combined.

This approach is consistent with research emphasising shared learning and interdisciplinary engagement as mechanisms for strengthening collaboration in planning and landscape-related fields (Sommese, 2024). It also responds directly to the finding that limited inter-professional training constitutes a barrier to collaboration.

Implications for Practice in Kaduna State

The findings have practical implications for the planning and development of Kaduna State. As urban areas expand and the demands for environmentally responsive development increase, opportunities for closer interaction between town planning and landscape architecture are likely to become more significant.

Rather than seeking to eliminate professional overlap, planning and design institutions could seek to manage overlap constructively. This could involve defining points of professional interface within project processes, encouraging early consultation between the two disciplines, and establishing mechanisms for joint participation where projects involve significant landscape, environmental or public-space considerations.

Such an approach could be particularly relevant to projects involving green infrastructure, public open spaces, ecological restoration, urban regeneration and climate-responsive urban development. Landscape architecture can contribute environmental and spatial design expertise, while town planning can provide broader land-use, regulatory and spatial-development perspectives. Combining these competencies may produce more integrated responses to urban challenges than either discipline working independently.

Implications for Professional Education and Policy

The findings also suggest a need to consider interdisciplinary engagement within professional education and continuing professional



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development. If professionals enter practice with limited exposure to the knowledge and responsibilities of other disciplines, misunderstandings about professional roles may persist.

Introducing interdisciplinary learning opportunities within built-environment education could therefore provide an early foundation for collaborative practice. Students of landscape architecture and town planning could, for example, participate in selected joint studios, planning exercises, site analyses or problem-based projects. Such experiences could help future professionals understand disciplinary differences while also recognising areas of complementarity.

At the professional level, regulatory and professional bodies could support joint continuing professional development programmes and interdisciplinary forums. Such initiatives would provide opportunities to clarify professional responsibilities while developing shared approaches to issues that inherently cross disciplinary boundaries.

4.0 Conclusion and Recommendations

Conclusion

The study examined landscape architects' and town planners' professional awareness, perceptions of role overlap, and opportunities for interdisciplinary collaboration in Kaduna State, Nigeria.

The findings indicate high professional awareness among both groups, with 86.7% of respondents demonstrating an understanding of landscape architecture's focus and 76.7% recognising the core functions of town planning. This provides a strong foundation for interdisciplinary collaboration. Furthermore, 81.7% perceived a moderate to high degree of professional overlap between landscape architects and town planners. Rather than necessarily indicating duplication or professional encroachment, this overlap reflects shared areas of professional interest that, when clearly defined and coordinated, can facilitate complementary expertise.

However, professional awareness alone is insufficient to sustain effective interdisciplinary collaboration. Institutional fragmentation, limited opportunities for inter-professional learning, and communication gaps remain important barriers, highlighting the need for stronger mechanisms to translate professional awareness into sustained collaborative practice.

The study concludes that interdisciplinary synergy between landscape architects and town planners in Kaduna State has considerable potential to support more integrated, sustainable, and resilient urban development. Realising this potential requires clearer understanding and coordination of professional roles, constructive management of areas of overlap, and institutional arrangements that facilitate regular professional interaction.

The findings are subject to limitations, particularly the reliance on 60 voluntary responses collected through WhatsApp, which limits their statistical representativeness of all landscape architects and town planners in Kaduna State. Future research should employ larger and more diverse samples, complemented by qualitative methods, to develop a deeper understanding of professional relationships, collaboration barriers, and opportunities for interdisciplinary practice.

Recommendations

Based on the findings of the study, the following recommendations are proposed:



1. Create regular platforms for landscape architects and town planners to engage through seminars, forums, discussions, and development programs for knowledge exchange and collaboration.

2. Strengthen interdisciplinary learning via joint workshops and seminars in landscape architecture and town planning to enhance professional knowledge and collaboration between disciplines, promoting effective teamwork and ongoing professional development.

3. Professional bodies must define interaction areas for landscape architects and town planners, fostering collaboration in public space, green infrastructure, environmental management, urban regeneration, and climate-responsive development without rigid boundaries.

4. Encouraging early collaboration between town planners and landscape architects in project planning, design, and implementation fosters effective integration of spatial planning and landscape considerations, enhancing outcomes through joint participation from the initial stages.

5. Strengthen communication by implementing structured consultations, joint meetings, and multidisciplinary teams, establishing clear information exchange channels to reduce misunderstandings and leverage overlapping responsibilities for complementary expertise.

6. Kaduna State's professional associations, academic institutions, and government agencies should support collaborative initiatives among landscape architects and town planners, including research, urban design, environmental projects, and public-space development.

7. Integrate landscape architecture and town planning in urban development. Encourage multidisciplinary approaches for urban expansion, environmental rehabilitation, public spaces, green infrastructure, ecological management, and climate adaptation to enhance planning decisions.

8. Universities should enhance landscape architecture and town planning programs by offering joint academic activities, interdisciplinary studios, fieldwork, and collaborative research to foster mutual awareness and effective professional relationships.

9. Future research should explore professional awareness, role perception, and collaboration through larger samples, qualitative methods, and comparative studies in northern Nigeria.

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