

Positioning Planning: Faculty Placement and Curricular Divergence in South African Planning Schools

Vuyiswa Letsoko, Ockert Pretorius

(Vuyiswa Letsoko; University of Johannesburg, Urban and Regional Planning; Johannesburg, South Africa, vuyisway@uj.ac.za)
(Ockert Pretorius; University of Johannesburg, Urban and Regional Planning; Johannesburg, South Africa, opretorius@uj.ac.za)

DOI: 10.48494/REALCORP2025.7180

1 ABSTRACT

The effectiveness of urban and regional planning education hinges on a comprehensive understanding of the complex and interconnected challenges facing contemporary cities. The institutional context within which planning programmes are situated significantly influences the perspectives and knowledge emphasized in the curriculum. This study investigates the diverse institutional placements of urban and regional planning programmes within South African universities, examining how their location within different faculties (e.g., Engineering, Humanities, Natural Sciences) shapes their curricular focus and ultimately impacts the skills and knowledge acquired by graduating planners. By analysing the relationship between institutional positioning and curriculum design, this research aims to contribute to a deeper understanding of the factors that influence the quality and relevance of planning education in South Africa. A qualitative research methodology is applied to determine possible differences between the programmes of schools in different faculties. Secondary data sources include institutional online resources and available programme overviews of respective programmes. This enables the grouping of planning schools per faculty and a curricula analysis in relation to themes inherent to SACPLAN competencies. After the application of specified criteria, four planning schools form part of the sample, two situated in the Engineering and Built Environment faculties of their institutions, and two in the faculties associated with Natural Sciences and Agriculture. The findings of the comparative analysis indicate intra- and inter-group differences and similarities in programme focus, technical emphasis, consideration of urban and rural contexts, and integration of themes like sustainability. However, factors other than faculty position may also influence said differences between planning schools, including the institutional history and spatial context. Recommendations include the implementation of a more flexible approach to programme formulation and accreditation, considering the unique institutional, historical, and spatial contexts of planning schools in South Africa. This may enable the development of competitive advantages in respective planning schools to catalyze ongoing growth and improvement in the sector.

Keywords: Urban and Regional Planning Education, South Africa, Faculty Placement, Curriculum Design, Future of planning

2 INTRODUCTION AND BACKGROUND

The twenty-first century is defined by unprecedented urban growth and complexity (UN-Habitat, 2016). Across the globe, cities are grappling with interconnected challenges, from climate change and resource scarcity to social inequality and rapid technological transformation. In this dynamic landscape, the role of urban and regional planning has become increasingly critical. As Hurlimann, et al. (2020) opine effective planning is therefore essential for creating sustainable, resilient, and equitable urban environments that can meet the diverse needs of their populations. Consequently, the field of urban planning education is undergoing a period of significant evolution. This comes as educational institutions are striving to adapt their curricula to reflect the changing demands of the profession, incorporating interdisciplinary approaches, cutting-edge technologies, and a greater emphasis on social justice (Frank and Silver, 2018). Furthermore, the diverse institutional settings in which planning programmes are situated play a substantial role in shaping their pedagogical approaches and the knowledge they impart. Whether housed within engineering faculties, social science departments, or schools of design, the dominant disciplinary viewpoints and research interests of their host faculties and institutions typically have an impact on planning programmes and their curricula. This institutional context inevitably shapes the skills and competencies of graduating planners, influencing their ability to address the complex challenges of contemporary urban life (Chen et al., 2020).

Within this global context, it is crucial to examine the particularities of planning education in South Africa. South Africa's urban landscape is marked by the enduring legacy of apartheid spatial planning, which has

resulted in deeply entrenched patterns of inequality and segregation (Letsoko et al., 2022). Furthermore, the country faces rapid urbanization, coupled with significant socio-economic disparities, creating unique challenges for urban development (ibid, 2022). Therefore, scholars such as Watson and Odendaal (2013) posit that the education of urban planners in Sub-African countries such as South Africa must be tailored to address these specific contextual factors. Consequently, the capacity for planning schools to generate graduates who can successfully negotiate the intricacies of the South African urban environment is directly tied to the caliber and applicability of their curricula, making their efficacy crucial for promoting inclusive and sustainable urban development in South African cities. This leads to the central question of how the institutional positioning of planning programmes within South African universities influences their curricular focus and, ultimately, the skills and knowledge acquired by future planners. This paper, seeks to contribute to a deeper understanding of these dynamics. By examining the diverse institutional placements of planning programmes across South African universities and analyzing corresponding curricular variations, this research aims to shed light on the factors that shape the quality and relevance of planning education in this critical context. Understanding the influences of faculty placement upon curriculum design will allow for suggestions to improve the quality of planning education and, therefore, the quality of future planners within South Africa.

3 LITERATURE REVIEW

3.1 Urban Planning education

The origins of city planning can be traced back to the earliest human settlements in most societies. However, the formal education of professionals equipped to strategically transform urban spaces is a more recent development (Frank and Silver, 2018). In the Global North, the emergence of formal planning education aligned closely with the rise of the modern city planning movement in the early 20th century (UN-Habitat, 2009). This movement was largely driven by growing anxieties surrounding the overcrowded and unsanitary conditions prevalent in rapidly industrializing European cities. A key milestone in this development was the establishment of the first-degree programme in Town Planning and Civic Design at the University of Liverpool in 1909 (Roy et al., 2015). This programme, with its emphasis on urban health and sanitation, represented the first dedicated effort to formally train urban planners. The significance of this development was further underscored by the launch of the Town Planning Review in 1910, which played a crucial role in establishing urban planning as a recognized academic discipline (Davoudi and Pendlebury, 2010). The establishment of this journal not only provided a platform for scholarly discourse but also catalyzed the development of similar programmes elsewhere, including the urban planning course initiated at the Massachusetts Institute of Technology (MIT) in the United States in 1912 (Vale, 2018). While the initial focus of the first town planning degree was specifically on town planning related issues, its nature was inherently multidisciplinary. The early pioneers of the field often came from a variety of professional backgrounds, including civil engineering, architecture, landscape architecture, surveying, public health, and law (Haghani et al., 2023). These professionals brought their existing disciplinary knowledge and experience to the field of planning, contributing to the development of interventions that drew upon a range of perspectives and as graduates of these programmes entered the workforce, they integrated their prior training with newly acquired planning knowledge, leading to innovative approaches to urban problem-solving (Silver, 2018). This served as a foundation for the evolution of planning curricula in the decades that followed. From these relatively modest beginnings, urban planning gradually emerged as a distinct discipline in the early 20th century. This took place as dedicated and standalone planning programmes began to emerge in many Western countries due to the increasing demands for specialized expertise in addressing the multifaceted problems of rapidly urbanizing societies (Silver, 2018).

In the Global South, particularly in most African cities, urban planning was introduced as a colonial imposition. This history has had a lasting impact on higher education institutions, national planning systems, and the specific urban problems faced by planners (Watson & Odendaal, 2013; Sami et al., 2022). A current debate within the field questions whether existing planning curricula are suitable for addressing the unique challenges of urbanization in the Global South given its origins. Academics have argued that the enduring influence of colonialism on planning education is evident not only in the structure of degrees and curricula, but also in the underlying values, philosophies, and teaching methods (Diaw et al. 2002; Denoon-Stevens et al. 2022; Sami et al. 2022). This colonial legacy, it is suggested, leaves graduates ill-prepared to effectively

address the realities of urban life in the Global South and to promote meaningful social and urban change within their communities. Most universities across various African nations, were largely established as a result of the colonial project and urban planning was used to service the colonial ideologies through extending control over colonial territories and the planning-enabled spatial segregation of urban settlements (Njoh 2009). Thus, planning and planning education in the African continent has to be viewed against a background of the continent's colonial and post-colonial past (Sawyer 2004). Watson and Odendaal (2013) argue that South Africa's apartheid history and resources often position it as an outlier. However, its universities are not necessarily better resourced than others in Africa, and its planning system, though recently reformed, still grapples with poverty and service delivery issues common to neighboring countries. South Africa's stronger institutional capacity in planning and higher education, coupled with a more complete decentralization of local government, facilitates research funding and municipal-level planning reform, a distinction from many other African nations where decentralization efforts remain incomplete (ibid, 2013).

3.2 Curriculum Frameworks and Divergence

Given the dynamic higher education around the globe, curriculum development and reform are ongoing imperatives (Luckett and Shay, 2020). A curriculum encompasses the organized content of courses and degree programmes, the lived experiences of students, and the interactive relationship between teaching and learning (Fraser and Bosanquet, 2007). It is both a planned entity, reflecting the intended learning outcomes of courses and programmes, and a dynamic activity, encompassing the actual implementation and resulting effects of those courses and programmes (Clarence-Fincham and Naidoo, 2013). The historical record shows a strong connection between planning and planning education, and the specific institutions and societies in which they exist (e.g., Frank et al., 2014; Keller et al., 1996). Planning educators have consistently sought to update curricula to reflect evolving societal and professional needs. European urban planning education is characterized by a wide range of approaches and curricula (UN-Habitat, 2009). Frank et al. (2014) categorized these approaches into three models: planning as a specialized discipline within architecture or engineering (e.g., Spain, Italy, Netherlands, Greece); planning as an extension of social sciences, producing specialists in areas like political or applied geography (e.g., UK, Germany, Switzerland); and planning as an independent, interdisciplinary field focused on policy development (e.g., Netherlands, France, Italy, UK). These models often overlap, reflecting a trend towards multidisciplinary education. Canadian and Australian planning curricula share similar foundations due to their shared British colonial history. However, Canadian programmes, particularly in Ontario, emphasize multiculturalism and ethnic diversity (Goonewardena et al., 2004), while Australian programmes prioritize environmental sustainability (Hurlimann, 2009). In the case of the United States, Anacker (2024) highlights that in 2017, the US Planning Accreditation Board accredited 72 master's and 16 bachelor's degree programmes in planning in the US, with approximately 38 additional universities offering related, non-accredited programmes. These programmes are housed in various academic departments and colleges, including those focused on architecture, design, construction, planning, urban planning, and public affairs. While providing a general planning foundation, these programmes also allow students to specialize in areas like land use, transportation, environmental planning, small town and rural development, housing, community and economic development, historic preservation, urban design, and international development.

African planning education faces challenges related to curriculum development and research funding due to rapid urbanization, poverty, and inequality (UN-Habitat, 2009). While many sub-Saharan African countries share similar, colonial-era influenced approaches, South Africa's apartheid history and resource availability create some distinctions. Nevertheless, rapid urbanization and its associated problems are reshaping the demands placed on planners across the continent (Watson & Odendaal, 2012). Watson and Odendaal (2013) further analyzed 46 African planning schools within the Association of African Planning Schools (AAPS), revealing diverse curricular orientations. One category emphasizes technical design and physical planning, often at the undergraduate level and linked to architecture or engineering (e.g., University of Botswana, Ethiopian Civil Service College, Sudanese universities). A second category, exemplified by the Ardhi Institute (Tanzania) and Kwame Nkrumah University of Science and Technology (Ghana), has evolved from a physical planning focus to include policy and management at the postgraduate level, often retaining a design component. The most common category is a geographically, regionally, or environmentally focused approach, typically at the postgraduate level (e.g., Kenyan universities like Kenyatta, Maseno, and Nairobi,

and numerous Nigerian institutions). South Africa's eleven planning schools have diverse histories and influences, including British-influenced programmes (e.g., University of the Witwatersrand), those shaped by apartheid-era planning, and more recent "human-centered" or "developmental" approaches. Post-apartheid, South African programmes have incorporated elements of American social science planning, maintained traditional physical planning approaches, or focused on development (ibid, 2013). This indicates that The curriculum of planning education is influenced by faculty placement, which determines the focus on either technical, policy-driven, or participatory aspects of planning. In South Africa, planning curricula are aligned with SACPLAN that outlines the competency frameworks to standardize planning education however, institutional positioning affects how these competencies are interpreted and taught (Pretorious et al. 2021; Pillay et al. 2021). This suggest that while accreditation ensures baseline proficiency, faculty placement can create disparities in student competencies across universities thus curricular divergence presents challenges in standardizing planning education while ensuring diverse knowledge perspectives.

4 METHODOLOGY

A qualitative research approach is applied to achieve the objectives of the research. Inherent hereto is the analysis of available secondary data from planning schools, in the form of programme overviews and module information, to be able to determine possible differences between the programmes of schools in different faculties. The central instrument in this regard is a comparative analysis of the programmes informed by the themes associated with the South African Council for Planners (SACPLAN) competencies. This includes functional and core competencies (SACPLAN, 2014). A deductive reasoning approach is applied in this context, where the researchers' background knowledge of the various planning schools is utilised to support the interpretation of the findings (Fife & Gossner, 2024). This may contribute to the mitigation of potential limitations in the publicly available secondary data. The criteria utilised in the selection of planning schools to include in the sample are the following:

- (1) Programmes at National Qualification Level (NQF) 7 and 8. This ensures a comparison of programmes at a similar level.
- (2) The minimum secondary data is publicly available. This includes an overview of the faculty and programme, as well as module names.
- (3) Programmes are specifically focussed on urban and regional planning, rather than a sub-field of the discipline.
- (4) Programmes are accredited by SACPLAN.

The planning schools that meet these criteria are included in the sample and grouped according to faculty positioning to enable the analysis of inter- and intra-group differences. The planning schools remain anonymous throughout the analysis and discussion. Artificial Intelligence (AI) software (ChatGPT, developed by OpenAI) is employed in the initial scoping of the secondary data sourced from the various institutions and planning schools. A subsequent process of thorough verification and elaboration is applied by the researchers within the scope and context of the study.

5 FINDINGS AND DISCUSSION

This findings and discussion section is centred on the comparative analysis of planning school groups as well as a discussion on the factors that may influence programme differences between planning schools.

5.1 Comparative analysis of planning school groups

Data availability considerations and adherence to the criteria culminated in the selection of four planning schools in South Africa to form part of the secondary data analysis. Planning School A and B (Group 1) are positioned within their tertiary institutions' Engineering and Built Environment faculties, while the primary disciplinary focus of the faculties of Planning School C and D (Group 2) are associated with Natural Sciences and Agriculture. These two groups thus constitute the sample in the comparative analysis central to this paper. Based on the available secondary data on programmes overviews and modules, Table 1 provides an overview of the comparative analysis between the two planning school groups centred on their comparative focus and themes relevant to SACPLAN competencies. The latter includes the technical focus,

urban and rural focus, infrastructure and land use considerations, governance and policy, and sustainability and environmental planning.

With reference to Group 1, and as indicated in Table 1, the available data may be indicative that Planning School A is more focussed on the technical aspects of planning, including spatial analysis, as well as regulatory planning, with limited consideration for urban design components. The potential strength of the programme is centred on its emphasis on GIS, land use management, urban infrastructure, and quantitative analysis and techniques. The relative strength of Planning School B, on the other hand, may be in its focus on policy aspects with reference to economic governance, as well as aspects related to urban design. Urban governance and spatial transformation may set this programme apart from the other planning schools in the sample. Planning School B, however, potentially illustrate a limited focus on technical infrastructure development and planning. Possible intra-grouping differences may be based on the divergent focus on technical planning aspects (Planning School A) and policy, governance, and design components (Planning School B); the one potentially focussing more on spatial modelling and the other on policy development; one with somewhat limited focus on the regional scale and the other highlighting spatial transformation; as well as engineering and infrastructure interventions compared to land use and urban economics. The common features of the Engineering and Built Environment group may be its focus on the urban context, with specific reference to urban governance. Inherent to the latter is a differing technical and policy focus.

Focus	Engineering and Built Environment (Group 1)	Natural Sciences and Agriculture (Group 2)
1. Comparative focus	Primarily focussed on urban and spatial planning with specific reference to technical and policy aspects.	Comparatively focussed on land use, environmental governance, and regional development.
2. Technical focus	Comparatively strong emphasis on Geographic Information System (GIS) and design (AutoCAD), which is considered in the context of spatial planning and infrastructure development	Moderate emphasis on GIS applied potentially more in the context of land sustainability and environmental planning
3. Urban and rural focus	Significant focus on urban development, with themes that emphasise urban infrastructure and economic development.	A comparatively greater focus on the rural context, which may be reflected in the apparent focus on land governance, rural development, and environmental policy.
4. Infrastructure and land use planning	Potentially significant consideration of land use planning and infrastructure development in the context of policy and governance.	Comparatively strong emphasis land use planning in the context sustainable development in a primarily rural context.
5. Governance and policy formulation	Potentially significant focus on governance and policy development and implementation in the urban context.	Data may reflect a focus on land governance and associated policy considerations.
6. Sustainable development and environmental planning	Potential consideration of related elements in infrastructure development and policy development and implementation.	Potential consideration of related elements in land management and associated policy.

Table 1: Comparative analysis of programme focus. Source: Authors (2025).

In terms of Group 2, the available data on Planning School C may be indicative of the relative importance of land use planning, sustainable development, and environmental planning in this programme, while reducing the emphasis on urban infrastructure planning. The unique offering of this programme may be centred on environmental planning and policy. Planning School D is comparatively focussed on rural development, land reform, and regional planning. The competitive advantage of this programme may be linked to rural development and land governance. Potential differences within the Natural Sciences and Agriculture grouping are that Planning School C may be more focussed on regional and environmental planning; applies GIS in the context of sustainability; includes reference to the urban scale; and applies policy in the context of environmental management. This is compared to the relative focus of Planning School D on the rural context, with reference to rural development and land policy and governance. Similar aspects within the group may potentially be centred on their incorporation of the regional and rural spatial development context, and environmental sustainability.

In the context of inter-grouping similarities, the findings of the preliminary analysis indicate the potential for numerous similarities between the two groups. This includes the central positioning of spatial planning within the programmes as an instruments toward alleviating societal challenges, with focus on the South African built environment. Both groups include the core elements of spatial analytical techniques, including GIS, while applying said tools in different contexts. The latter may vary from land management to urban infrastructure. Urban and regional planning themes are integrated in the programmes of both groups, while different in scale and developmental milieu. The two groups both integrate aspects related to governance and

policy, while the prominence of these themes and their application are divergent. Group 1 seems to apply these competencies in the context of urban transformation, while Group 2 is more focussed on rural development. A possible difference between the groups may thus be their varied urban and rural focus, which possibly translates in divergent consideration of themes such as urban infrastructure, land use, environmental planning, and sustainable development between the planning schools of each group. This may also be reflected in the integration of themes such as sustainability in the respective programmes, which is applied in the context of urban planning in the case of Group 1, while considered in the context of land and resource management in Group 2.

5.2 Factors in curriculum differences between Planning School Groups

The discussion of the factors that may influence differences within and between planning schools in the sample is centred on their faculty positioning, as well as the respective history and spatial context of their institutions.

5.2.1 Faculty positioning

The objectives of the faculty in which planning schools are positioned in their institutions may influence their respective programmes. With regard to the Engineering and Built Environment group, the available data may be indicative that the faculty relevant to Planning School A specifically emphasises engineering, the incorporation of advanced technology, applied science, and problem-solving as outcomes of its programmes. This is possibly reflected in the planning school's technical, analytic focus and incorporation of technological applications. Based on the faculty objectives, spatial and built environment challenges may be seen as problems to be solved through the application of specific technical interventions. The faculty emphasises strong industry collaboration, which may influence the focus on practical planning applications and skills to increase the employability of graduates. The faculty of Planning School B is comparatively more focused on socio-economic and spatial transformation that has and ought to take place and planning's response thereto. This may explain the apparent focus of the programme on urban policy, economic development, and governance in this context. Providing innovative solutions relating to climate change and sustainable development is also reflected in the faculty's objectives. While Planning School A places this in the context of technical interventions, Planning School B may consider these elements in the framework of social justice and transformation.

The positioning of Planning School C in its institution's Natural Sciences and Agriculture faculty may contribute to it being environment-centred and focussed on sustainability and sustainable development. This is also reflected in the incorporation of an urban ecology component in its programme. The available data potentially indicates that Planning School D highlights the need for interdisciplinary, transdisciplinary, and multidisciplinary research, which may bring about a broader thematic focus in the programme. The faculty seeks to ensure graduate competencies are relevant to the local rural context.

5.2.2 Institutional history and spatial context

Faculty positioning, however, may be one of various potential factors that may influence differences in planning programmes. One factor of particular importance may be the context of the difference institutions, which may holistically influence teaching and learning (Hiller & Laird, 2021). Relevant in this regarding may be the history of the institution, which may continue to influence institutional resource availability and constraints (Thompson et al., 2021). This is a prominent feature of the post-apartheid tertiary education sector in South Africa, where the function of "previously disadvantaged universities" and institutions is affected by historical unequal access to finance and development (Nyahodza & Higgs, 2017:42). The related effects on teaching and learning are initially explored by Singh (2004), highlighting lasting disparities in access to resources and information and communication technology (ICT) in the sector. Respective institutions of the sample planning schools may be categorised as previously disadvantaged or now include such institutions in their organisation.

Another potential factor that determines the differences between the planning schools and the two groupings may be their divergent spatial contexts. Both Planning School A and B are situated in metropolitan areas, which may inform their propensity to focus on the urban scale, and associated considerations of economy, governance, and policy. Planning School C and D, on the other hand, are located – to a differing extent – in rural areas. This context may precipitate a more nuanced focus on rural development considerations, with

specific reference to the question of land resources, sustainability, and environmental aspects. The inherent differences in socio-economic and spatial conditions influence local development objectives and public and private sector expectations of graduate attributes. This may manifest in different forces that shape and inform the composition of and content in the various programmes in the two sample groups.

Accordingly, it is possible that the institutional history and spatial context, in addition to a planning school's faculty positioning, may influence the local interpretation, viability, and relevance of SACPLAN competencies and their subsequent incorporation in the programme of each planning school. Historic and current financial constraints may, as an example, influence the viability of the holistic incorporation of functional competencies where advanced infrastructure and resources are required. The urban or rural spatial context of the planning school may influence the relevance of certain core competencies, including environmental planning and management, land economics, regional development and planning, and land use and infrastructure planning. The faculty positioning of planning schools may also influence the institutional interpretation of these competencies and subsequent manifestation in planning programmes.

6 CONCLUSION AND RECOMMENDATIONS

This study has explored the diverse institutional placements of urban and regional planning programs within South African universities, examining how their location within different faculties shapes curricular focus and, consequently, the skills and knowledge acquired by graduating planners. The comparative analysis of planning schools situated in Engineering and Built Environment faculties versus those in Natural Sciences and Agriculture faculties revealed potential intra- and inter-group differences and similarities in program focus, technical emphasis, consideration of urban and rural contexts, and integration of themes like sustainability. These variations, which are potentially associated with the different faculty positions of the planning schools, in addition to faculty positioning, may be attributed to the unique institutional history and spatial context of each university. The findings of the comparative analysis may be indicative of these intra- and inter-grouping differences and similarities. The study highlights the complex interplay of factors influencing curriculum design and the need for a nuanced understanding of their impact on planning education in South Africa.

A key limitation of this research lies in the limited and inconsistent availability of secondary data regarding program and module content. This constraint affected the depth and scope of the comparative analysis, influencing the detail and quality of the findings inherent to the comparative analysis, and limiting the ability to draw more definitive conclusions about the precise impact of faculty placement on specific learning outcomes. Future research is required to support the robustness of the findings and further investigate the diversity and influence of various factors in planning program composition and focus. Such research should prioritize access to more comprehensive and standardized data to strengthen the robustness of findings and further investigate the diverse factors influencing planning program composition and focus. Such research could explore student and faculty perspectives, analyze graduate outcomes, and examine the influence of professional accreditation requirements in greater detail. Based on the findings of this study, it is recommended that SACPLAN adopt a more flexible approach to accreditation and program formulation, considering the unique institutional, historical, and spatial contexts of planning schools in South Africa. The offering of planning programs ought to reflect the diversity of its institutions, all contributing to maintaining quality planning outcomes inherent to SACPLAN competencies, while enabling the development of competitive advantages in respective planning schools to catalyze ongoing growth and improvement in the sector. Recognizing these unique contexts is crucial. SACPLAN should consider these factors when evaluating programs, allowing for diversity in program offerings while ensuring adherence to core competencies. This approach would enable planning programs to reflect the specific strengths and specializations of their respective institutions, contributing to a richer and more relevant educational landscape. By fostering a system that values both quality assurance (through adherence to SACPLAN competencies) and institutional distinctiveness, South Africa can cultivate a dynamic planning education sector that produces graduates equipped to address the complex and evolving challenges facing its diverse urban and rural environments. This would encourage innovation and specialization within planning schools, ultimately contributing to the ongoing growth and improvement of the planning profession in South Africa.

7 REFERENCES

- Anacker, K.B. (2024). The Evolution of the Four Eras of Urban Planning Education in the United States. *Journal of Planning Education and Research*, 44(4), 2294–2304. <https://doi.org/10.1177/0739456X231177436>
- Chen, Y., Daamen, T.A., Heurkens, E.W.T.M. et al. (2020). Interdisciplinary and experiential learning in urban development management education. *International Journal of Technology and Design Education*, 30, 919–936. <https://doi.org/10.1007/s10798-019-09541-5>
- Clarence-Fincham, J., & Naidoo, K. (2013). Taking a longer view: Processes of curriculum development in the department of graphic design at the University of Johannesburg. *Critical Studies in Teaching and Learning (CriSTaL)*, 1(1), 80–102.
- Davoudi, S., & Pendlebury, J. (2010). Centenary paper: The evolution of planning as an academic discipline. *Town Planning Review*, 81(6), 613–646.
- Denoon-Stevens, S., Andres, L., Jones, P., Melgaço, L., Massey, R., & Nel, V. (2022). Theory versus practice in planning education: the view from South Africa. *Planning Practice & Research*, 37(4), 509–525.
- Diaw, K., Nnkya, T., & Watson, V. (2002). Planning education in sub-Saharan Africa: responding to the demands of a changing context. *Planning Practice and Research*, 17(3), 337–348.
- Fife, S.T. & Gossner, J.D. (2024). Deductive qualitative analysis: evaluating, expanding, and refining theory. *International Journal of Qualitative Methods*, 23, 1–12. <https://doi.org/10.1177/16094069241244856>
- Frank, A., Mironowicz, I., Lourenço, J., Franchini, T., Ache, P., Finka, M., Scholl, B., & Grams, A. (2014). Educating Planners in Europe: A Review of 21st Century Study Programmes. *Progress in Planning*, 91, 30–94.
- Frank, A.I., & Silver, C. (2018). Introduction. In: Frank, A., & Silver, C. (Eds.), *Urban Planning Education*. The Urban Book Series. Springer, Cham. https://doi.org/10.1007/978-3-319-55967-4_1
- Fraser, S.P., & Bosanquet, A.M. (2007). “The curriculum? That’s just a unit outline, isn’t it?”. *Studies in Higher Education*, 31(3), 269–284.
- Gurran, N., et al. (2020). Analysis of Australian urban planning degrees. *Environmental Education Research*, 27(7), 970–991. <https://doi.org/10.1080/13504622.2020.1836132>
- Haghani, M., Sabri, S., De Gruyter, C., Ardeshiri, A., Shahhoseini, Z., Sanchez, T.W., & Acuto, M. (2023). The landscape and evolution of urban planning science. *Cities*, 136, 104261. <https://doi.org/10.1016/j.cities.2023.104261>
- Hiller, S.C. & Laird, T.F.N. (2021). Disciplinary differences in faculty emphasis on deep approaches to learning: comparing conceptualizations of academic discipline. Paper presentation at the annual meeting of the American Educational Research Association (AERA).
- Keller, D.A., Koch, M., & Selle, K. (1996). ‘Either/or’ and ‘and’: first impressions of a journey into the planning cultures of four countries. *Plan Perspectives*, 11(1), 41–54.
- Letsoko, V., Naidoo, K., & Gumbo, T. (2022). The struggle to belong: Middle classing and social change in post-apartheid South Africa. In *Mobility, Knowledge and Innovation Hubs in Urban and Regional Development*. Proceedings of REAL CORP 2022, 27th International Conference on Urban Development, Regional Planning and Information Society, pp. 831–841. CORP–Competence Center of Urban and Regional Planning.
- Luckett, K., & Shay, S. (2020). Reframing the curriculum: a transformative approach. *Critical Studies in Education*, Online First, 1–16. <https://doi.org/10.1080/17508487.2017.1356341>
- Njoh, A.J. (2009). Urban planning as a tool of power and social control in colonial Africa. *Plan Perspectives*, 24(3), 301–317.
- Nyahodza, L. & Higgs, R. (2017). Towards bridging the digital divide in post-apartheid South Africa: a case of a historically disadvantaged university in Cape Town. *South African Journal of Libraries and Information Science*, 83(1), 39–48.
- OpenAI. (2023). ChatGPT. <https://chatgpt.com/>
- Pillay, N., Pretorius, O.R., Letsoko, V., & Huston, G.D. (2021). Fostering sectoral competitiveness and adaption: 4IR in architecture curricula of South African tertiary institutions. Research Paper presented at the 57th ISOCARP World Planning Congress, Doha, Qatar, 8–11 November 2021.
- Pretorius, O., Pillay, N., Letsoko, V., & Huston, Z. (2021). Integrating the 4th Industrial Revolution in spatial planning curricula: the case of South African tertiary institutions. Paper presented at the Construction Education: Live the Future Conference. Deakin University.
- Roy, A.K., Ghosh, D., & Kaliyath, A. (2015). Exploring a Multi-disciplinary Approach to Urban Planning: Need for a Paradigm Shift in Planning Education in India. Paper presented at the 13th International Congress of Asian Planning Schools Association (APSA 2015), Johor Bahru, Malaysia, 12–14 August.
- South African Council for Planners (SACPLAN). (2014). Guidelines for competencies and standards for curricula development. <https://sacplan.org.za/wp-content/uploads/Competencies-Guidelines.pdf>
- Sami, N., Lall, R., Anand, G., & Anand, S. (2022). Rethinking planning education for urban equality: higher education as a site for change. *Environment and Urbanization*, 34(2), 413–429. <https://doi.org/10.1177/09562478221113623>
- Sawyer, A. (2004). Challenges facing African universities: selected issues. Association of African Universities, Accra, Ghana.
- Sihlongonyane, M.F. (2018). The generation of competencies and standards for planning in South Africa: Differing views. *Town and Regional Planning*, 72, 70–83. <https://doi.org/10.18820/2415-0495/trp72i1.6>
- Silver, C. (2018). The Origins of Planning Education: Overview. In: Frank, A., & Silver, C. (Eds.), *Urban Planning Education*. The Urban Book Series. Springer, Cham. https://doi.org/10.1007/978-3-319-55967-4_2
- Singh, A.M. (2004). Bridging the digital divide: the role of universities in getting South Africa closer to the global information society. *South African Journal of Information Management*, 6(2), 1–9.
- Thompson, R.J. Finkenstaedt-Quinn, S.A., Shultz, G., Gere, A.R., Schmid, L., Dowd, J.E., Mburi, M., Schiff, L.A., Flash, P. & Reynolds, J.A. (2021). How faculty discipline and beliefs influence instructional uses of writing in STEM undergraduate courses at research-intensive universities. *Journal of Writing Research*, 12(3), 625–656. <https://doi.org/10.17239/jowr-2021.12.03.04>
- Vale, L.J. (2018). Educating Planners at MIT: Eight Decades of Changing Cities. In: Frank, A., & Silver, C. (Eds.), *Urban Planning Education*. The Urban Book Series. Springer, Cham. https://doi.org/10.1007/978-3-319-55967-4_4
- Watson, V., & Odendaal, N. (2013). Changing Planning Education in Africa: The Role of the Association of African Planning Schools. *Journal of Planning Education and Research*, 33(1), 96–107. <https://doi.org/10.1177/0739456X12452308>

