

Mapping housing research methods: Enhancing the link between research theory and methods in African housing studies

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ABSTRACT

Relevant, empirical research creates the foundation for better informed decisions. Poor research that employs inappropriate methods or is without a broader theoretical foundation can lead to poor decision making and the misallocation of resources. This paper seeks to make a methodological contribution by improving our understanding of the potential range of housing research methods, and how housing theory can and should link to choice of method.

The paper reviews a number of methodological frameworks with the purpose of identifying what was regarded as conventional housing research, and then to explore potential emerging areas of research methodology that would be useful in advancing housing studies. By mapping housing research methods it becomes more feasible to relate research *objectives*, in each case, to the more rigorous selection of appropriate research *methods* and mixes of methods to satisfy those objectives.

The broader goal is to contribute to a process of more deliberately establishing housing research as a science so as to meet the growing complexity of the housing challenges that the continent faces, and to build innovation for inclusive development (Kruss, Petersen, Rust, & Tele, 2017).

Keywords: Housing studies, research methods, methodology, theory

1 HOUSING STUDIES AND RESEARCH METHODOLOGIES

"Data are not free-floating objective facts but are of necessity socially constructed to answer particular kinds of questions." Jim Kemeny and Stuart Lowe, 1998

Housing research as it has emerged over the last century has tended to be more a broad field of study than a coherent academic discipline. Contributions to theory in housing studies have mostly been derived from parent disciplines including sociology, political science, economic history (Lawson, Haffner, & Oxley, 2008), economics, geography, health sciences, and the built environment disciplines (architecture, engineering and planning, for example). And so housing studies has been a fairly amorphous grouping of interested parties each focusing on different aspects. The apparent inability of early housing research to develop coherent theories of housing for its own field (Jacobs & Manzi, 2010; Oxley, 2001) can be attributed to the relatively wide scope of the field, and the broad grouping of involved disciplines: *"The basic reason for being suspect about theory of housing is that housing itself is not a research topic but a common denominator of a number of research topics: housing policy, housing provision, housing organizations, housing choice, housing mobility, housing tenures, uses and meanings of housing, housing inequalities, and more. There is no one "theoretical object". Rather there are many theoretical objects linked with housing, and theorizing them is more or less connected with theoretical debates elsewhere"* (Ruonavaara, 2018).

1.1 POSITIVIST VERSUS CONSTRUCTIONIST

Over at least the last five decades, increasing numbers of universities have offered Housing Studies as a course at undergraduate level or as a postgraduate degree. The demand, mainly from government and global multilateral agencies (UN Habitat and the World Bank, for instance), for empirically sound housing research (Tipple & Willis, 1991; Kemeny & Lowe, 1998) was one of the factors that gave rise to the need for recognized tertiary qualifications.

Early research by professionals in the various fields mentioned tended to be very applied, with governments commissioning research to understand, explain and solve housing challenges (for example, see Malpass, 1976). This early period was therefore characterised as being mostly positivist, empirical, policy-focused, and somewhat lacking in conceptual foundation, as described by several commentators (Clapham, 2018; Kemeny & Lowe, 1998).

Referring to the 1960s and 1970s, Jacobs and Manzi state that “... *although the absence of explicit theory remains a defining characteristic of mainstream housing research, it primarily relies upon a positivist epistemology. Within this paradigm, the task of the housing researcher is one of discovering objective facts, presenting them in a descriptive format in the expectation that policy makers will take notice and act accordingly*” (Jacobs & Manzi, 2010, p. 35). Oxley concurs with the view that housing research was lacking in theoretical depth: “*A major fault in international housing research is that some work that claims to be analytical and comparative has in fact stopped short at precursory description. The aim of research projects is often unclear. It is unsurprising then that the methodology is frequently not explicit*” (Oxley, 2001, p. 90).

The positivism evident in the early period was perhaps partly because housing research was influenced by post-war thinking in Europe where one of the key objectives of the refocused social sciences was to collect and apply empirical evidence to influence the policy agenda to improve social policy and administration (Jacobs & Manzi, 2010). This was also true of housing research.

The same authors then trace the emergence of ‘*social constructionism*’ in housing studies from the mid-1990s to facilitate greater depth of interpretation of housing policy and practice. “*A constructionist epistemology purports that an individual’s experience is an active process of interpretation rather than a passive material apprehension of an external physical world. A major claim advanced by those adopting a social constructionist epistemology is that actors do not merely provide descriptions of events, but are themselves constitutive of wider policy discourses and conflicts. Viewing society and social policy as malleable and subject to power struggles, constructionists do not accept social facts as permanently “accomplished”. This emphasis on contestation is important in offsetting any tendency by actors to objectify social phenomena or reify abstractions into material realities*” (Jacobs & Manzi, 2010).

This kind of thinking opens up more space to construct higher level philosophies and theories of housing more capable of interpreting empirical evidence useful for generating recommendations for social and economic policy change. It also makes the underlying theories and assumptions of any given piece of research more explicit than was the case in the earlier period of housing studies: “...*since all research contains implicit underlying epistemological assumptions, it is important to make these explicit so that research can be properly evaluated and understood. In addition, theory has a role in highlighting the ideological assumptions that inform housing research and establishing the political context in which research is undertaken*” (Jacobs & Manzi, 2010).

The more empirically-based, positivist approach has some advantages in that observations (admittedly not unbiased) and evidence lead directly to policy recommendations. This works reasonably well in fairly homogenous and non-complex study environments. The limitation is that in the absence of a higher level interpretive model, it may not be easy to extract generalizable characteristics in situations where there is greater heterogeneity and more diversity in the realities being experienced and observed. On the other hand, a theoretical model that is too rigid can lead to the over simplification of the diversity of realities observed on the ground. Kemeny and Lowe (1998) discuss this trade off in the setting of comparative housing research.

1.2 PARTICULARISTIC VERSUS UNIVERSALISTIC

Instead of employing the positivist versus constructionist axis, Kemeny and Lowe contrast *particularistic approaches* in comparative research “...*which are conceptually unexplicated and highly empirical and in which each country is seen as unique*” and *universalistic approaches* “...*in which all countries are seen as being subjected to the same overriding imperatives*” (Kemeny & Lowe, 1998). In between these two extremes they identify and discuss ‘*theories of the middle range*’.

To briefly summarise, Kemeny and Lowe hold that there are roughly three different schools or research traditions that are each ‘associated’ with different levels of generalisation. The particularistic approach holds that detailed analysis of localised case studies or situations using empirical methods reveals a wide diversity of realities that cannot and should not be generalised. Each country and place is unique. When collecting information across different countries and places, and presenting these alongside one another, such cases are ‘*juxtaposed*’ with one another without an attempt to identify patterns that would allow comparison between places. This approach tends to employ more qualitative research methods associated with the social sciences and to generate descriptive and localised studies.

The universalistic *approach* on the other hand holds that higher level theoretical frameworks can be helpful in creating the basis for generalisation of findings gathered at local levels. It tends to adopt a developmental view of the world, where the theoretical framework (which is inevitably a social construct) helps to determine in what direction nations and countries are moving, usually along a pre-defined trajectory. What is useful about this way of understanding these universalistic approaches, is that the theoretical framework as an imposed organising structure can come from any place on the political/ philosophical spectrum: “... *all countries are seen as being subjected to the same overriding imperatives, whether this is ‘the logic of industrialism’, capitalist market failures, the structural drive to increasingly comprehensive welfare states or its opposite, the privatisation and recommodification of welfare. ... Much of this implies a form of ‘unilinealism’, according to which countries are not only converging but share a common trajectory of change*” (Kemeny & Lowe, 1998). Research methods employed by adherents to this approach tend to be more quantitative and data based, in an attempt to extract significant patterns across many places.

The middle ground between these two extremes, described as *theories of the middle range*, are studies “...*that propose typologies of housing systems derived from cultural, ideological, political dominance or other theories as the basis for understanding differences between groups of societies. Such approaches in the comparative housing literature are termed ‘divergence’ perspectives. The divergence approach does not argue for an unspecified process of differentiation between societies or suggest that the trajectories of social change are necessarily and/or randomly digressing. Rather, it is argued that developments in the last couple of decades have moved the debates from earlier highly particularistic analyses through the global generalisation approach that is currently dominant and towards the emergence of attempts at basic typologies of housing systems*” (Kemeny & Lowe, 1998). Research methods are mixed in an attempt to generate typologies that meaningfully relate to localised, experienced reality.

1.3 FROM THEORY TO METHOD

How does all of this relate to the topic at hand? The intention of this paper is to propose a framework for mapping research methods used in housing studies (now and possibly in the future). In discussing the different groupings of research methods that tend to be employed by the three approaches described here, and indeed also by the positivist and constructionist positions covered earlier, we are moving towards a more nuanced understanding of how the adoption of different, higher level philosophies and approaches (refer Saunders, M., Lewis, P. and Thornhill, 2012)(Figure) by research agents then influence the selection and application of research methods to suit their broader agendas.

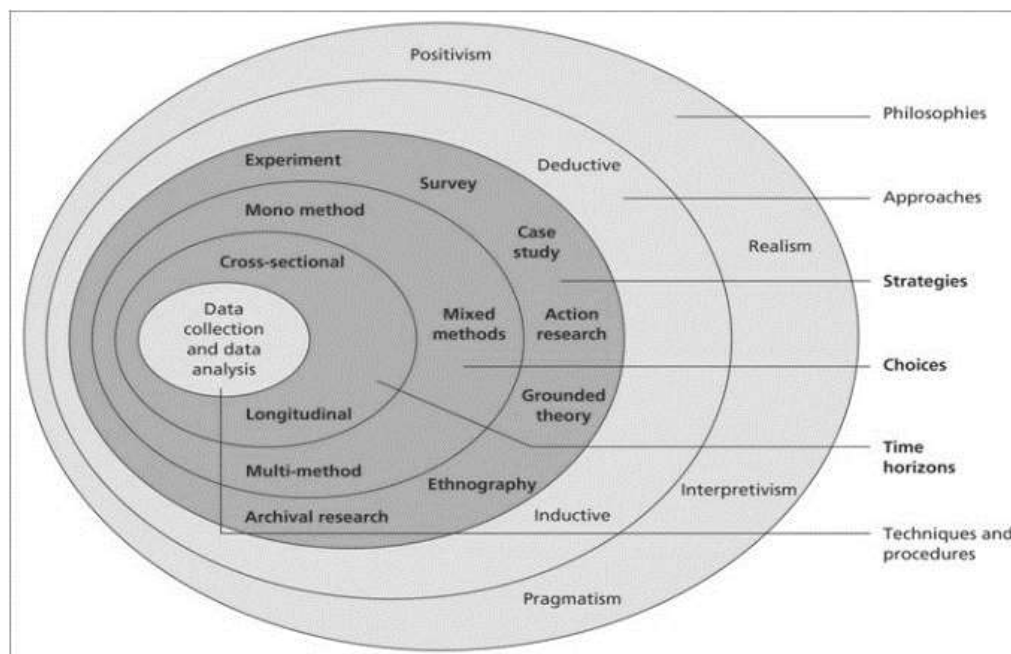


Figure 1 Levels of research (Saunders, M., Lewis, P. & Thornhill, 2012)

Best expressed by Kemeny and Lowe, “*It is also important to note that the congruence between the schools of research—juxtapositional, convergence and divergence—and the levels of generalisation, respectively, the*

particularistic, the universalistic and the 'middle range', would appear to be related significantly to the research methodologies which are characteristic of each school. ... Ironically, both the particularistic and the most universalistic levels appear to have a common heritage in the empiricist tradition of research. ... Theories of the middle range adopt a more qualitative, culturally sensitive and historically grounded approach" (Kemeny & Lowe, 1998).

From these commentaries about the development of housing studies and the emerging schools of thought, it would seem that a self-awareness about one's default (or considered) theoretical position in this landscape would be advisable for the range of academic institutions, research organisations and research consultancies operating in the housing studies space in South Africa. If there is not this conscious, reflective practice of research, one of the dangers of an overly positivist approach which is serving mainly a social policy function (i.e. research to inform state policy), is, as we have seen, that the housing theory of researchers tends to remain implicit rather than explicit, and secondly that the reality observed in one's own country or city/ town is assumed to be typical of other places, leading to the danger of ethnocentrism where our own reality is projected onto others making genuine comparison (that caters to diverse realities) more difficult (see Kemeny & Lowe, 1998).

2 MAPPING HOUSING RESEARCH METHODS

By mapping housing research methods it becomes more feasible to relate research objectives, in each case, to the more rigorous selection of appropriate research methods and mixes of methods to satisfy those objectives. This also assists in remaining more consciously consistent with one's research philosophy and one's theory of housing.

In following this path of mapping methods, the intention was also to add rigour to the practice of housing research and housing science in increasingly complex settlement and urban settings (so that the ability to interpret realities remains commensurate with observed complexity). The second intention was to explore some of the methodological advances in research theory, data collection and data analysis in some of the associated disciplines that contribute towards shaping housing studies.

Thirdly, we also wanted to make some comment on the potential of enhanced housing research to make a more direct link between advances in science, technology and innovation, and the improvement of sustainable human settlements and inclusive development (Kruss *et al.*, 2017). This is a very positivist, policy-oriented goal of course, but it might also be realistic to expect that one of the convergent theoretical constructs or some of the typologies built from empirical observations within a more divergent perspective, will assist in better understanding, for example, the national system of innovation or, as another example, understanding how the (formal and informal) housing sector works as a system at national, regional and local levels.

2.1 CONVENTIONAL RESEARCH METHODS

In addressing housing research, the focus was on exploring methodological frameworks that offered potential for new avenues of expansion from conventional methods. We did not fully explore the current political dynamics of housing research in South Africa and the African continent as there are various other sources that consider the fundamental, philosophical shifts required for adequately investigating the field in an African context. Such discourse advocates for a focus on locally-generated knowledge, reform of approaches and philosophies within research methodology, and local policy-orientated research (Parnell & Pieterse, 2016; Simon, Palmer, Riise, Smit, & Valencia, 2018; Sturtevant, 2015). Parnell and Pieterse call for a "repositioning of conventional modes of research" to address typical African research conditions "... *where human needs are great, information is poor, conditions of governance are complex and the reality is changeable*" (Parnell & Pieterse, 2016).

Not many academics have attempted to collect and arrange the vast array of methods that are and can be associated with housing studies, but through analysing treatises on research methods there are certain groupings of methods that can be said to be conventional in the field of housing research in the 1980s and 1990s.

An example is the 1991 edited book on "*Housing the Poor in the Developing World: Methods of analysis, case studies and policy*" (Tipple & Willis, 1991). Each chapter illustrates a research design that employed a method or mix of methods to address the objectives of a specific housing research project. The authors stress the

need to ground their research methods in each developing country context. They are comfortable with borrowing methods of analysis from various disciplines for application to housing studies.

They demonstrate that housing research can be addressed at various scales using appropriate methods, from neighbourhood to national levels. The methods documented range from qualitative field work, to participant observation, to contingent valuation and the use of cost-benefit analysis in housing finance, to mention a few. The approaches bring to the fore the respective roles of a range of research actors in contributing to a housing research capabilities framework, including researchers, economists and policy-makers.

The conventional set of research steps common to most fields also apply, including an initial literature review, followed by field or primary research (collection of observable data, participant data and descriptive data) which is then analysed to determine conclusions (McNelis, 2014). The field research conventionally includes various combinations of surveys, participant interviews and observations. This we would refer to as the conventional research methods employed in housing studies through to the early 2000s.

2.2 REVIEW OF ORGANISING FRAMEWORKS

In the quest to find an appropriate organising framework to chart conventional research methods and then to explore the potential usefulness of newer, emerging methods to the field of housing studies, we attempted to locate commentators who had attempted to adopt some form of logic to organise different types and mixes of methods.

At a strategic level Saunders (2012) offered a framework with a clear hierarchy of research philosophies (or theories), approaches, strategies, method choices, time horizons (i.e. cross sectional versus longitudinal studies), and data collection and analysis techniques (Figure). With our focus being on research methods, the distinction between research method and research design was important. Du Toit assists: “*Research designs’ are logical plans involving strategic decisions to maximise the validity of findings... Well-known designs include surveys, experiments, case studies, etc. Research methods are detailed steps within a design, involving data collection, analysis and interpretation*” (Du Toit, 2010). The scope of this discussion includes both aspects.

Another way to link research theory through to research method was Dudovkiy’s framework that presented a choice matrix through from ontology¹, to epistemology², to research approach, strategy and method.

¹ The science of being or the image of social reality upon which a theory is based. (Blaikie, 2009)

² “The theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion” (<https://en.oxforddictionaries.com/definition/epistemological>)

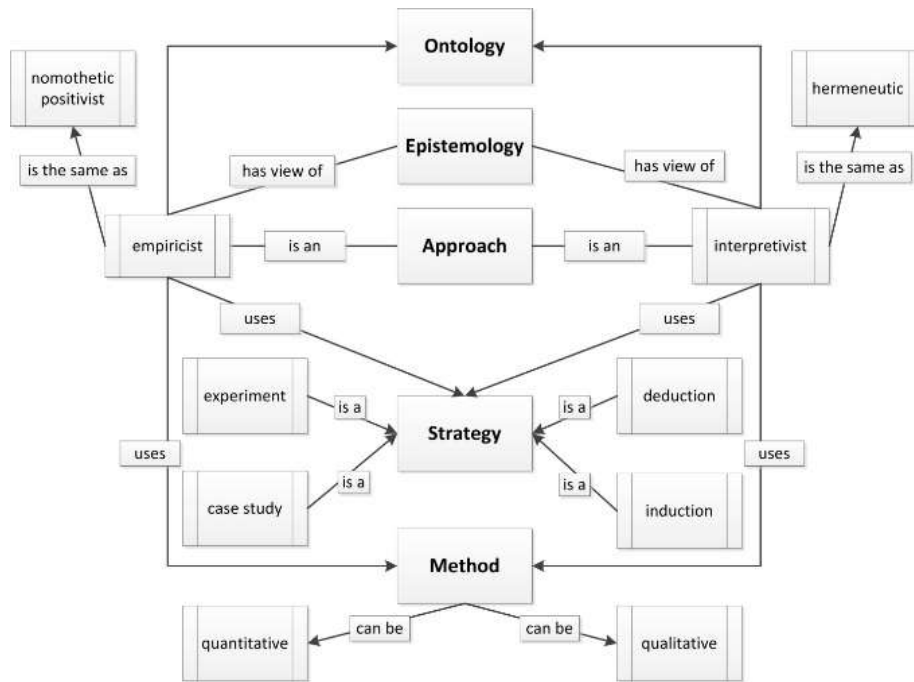


Figure 2 Impact of research philosophy on the choice of research method (Dudovskiy, 2018)

Dudovkiy's diagram equates research strategy to what du Toit referred to as research design. The simplest distinction in the area of method is of course quantitative versus qualitative (or mixes thereof). However we require more detail than that. Tiplle and Willis draw a distinction between research methods that employ personal judgement (subjective) versus those where the data are not derived using personal judgement (objective). They position the research methods described in their book along a continuum with intuitive judgement at one end (e.g. cultural analysis and participant observation) and scientific experiment at the other end, and with other gradations in between (Figur3).

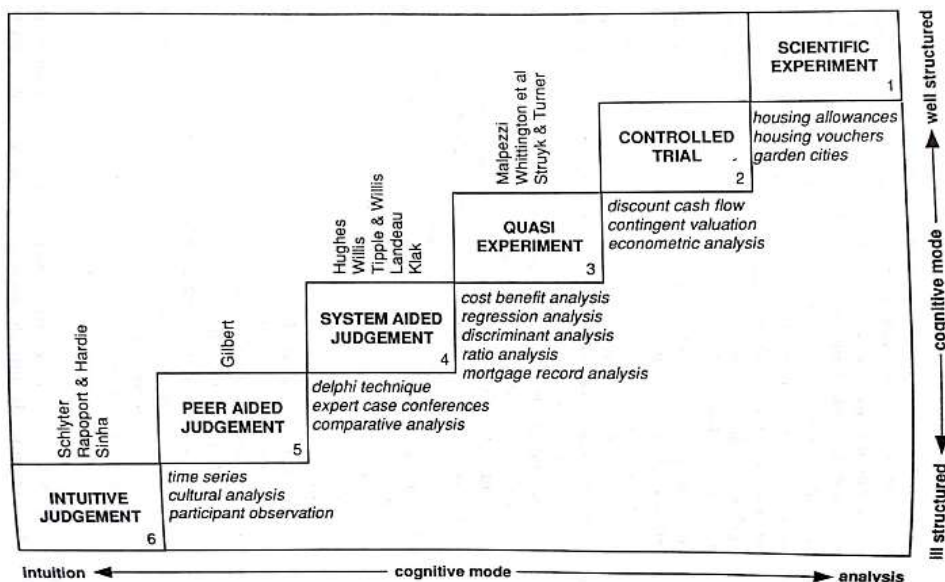


Figure 3 Modes of enquiry and analysis: based on Hammond's cognitive continuum (Tiplle & Willis, 1991)

The next two frameworks explored linked a broader research intention with the subsequent selection of appropriate methods. This linked more closely to the Kemeny & Lowe (1998) logic where different groups of researchers would want alternatively to make more universal generalisations compared to other groups

wishing to be more descriptive, detailed and local, with less of a desire to compare across places. Both frameworks originated in the urban and regional planning disciplines rather than in housing studies *per se*.

The first such framework emerged from an endeavour to describe the work of the African Centre for Cities (ACC) based at the University of Cape Town. The stated objective of the ACC was to strive towards achieving *“the notion of translational urban research praxis” in its research and engagement. This notion “...captures more than the idea of applied research, or even co-production, and encompasses integrating the research conception, design, execution, application and reflection—and conceiving of this set of activities as a singular research/practice process.”* (Parnell & Pieterse, 2016). The translational urban research praxis approach described would seem to be closest to the *‘theories of the middle range’* (Kemeny & Lowe, 1998) described above, with a special emphasis on being locationally specific, embedded and grounded (Parnell & Pieterse, 2016).

Parnell and Pieterse’s framework uses ‘research mode’ as its main organising element (*Figure*).

The modes include, amongst others, pure research, applied research and advisory services, embedded researchers and practitioners involved in the co-production of knowledge (e.g. between the university and the municipal government) and then other forms of engagement such as research laboratories, professional networks, exhibitions and published knowledge products.

What is particularly useful about this kind of organising framework is that the type of research or knowledge production is linked to appropriate methods and then through to an explicit purpose that the research institute wishes to achieve.

For example, the stated purpose of the pure research mode leans more towards the theoretical, divergent side, and the applied research mode leans more towards normative influence on policy (refer Figure 4).

The framework is quite specific to the organisation (the ACC), but the framework is a useful device to achieve an alignment between higher level approach (in this case ‘translational urban research praxis’) and designed research interventions employing consistent research methods.

Research Mode	Methods	Example	Purpose
Pure research	Data design, collection and analysis using established research theories and methods	See UCT research reports (http://www.researchoffice.uct.ac.za/research_reports/annual/)	Understand past legacies; analysis of different aspects of urban complexity (e.g. politics, design, welfare, culture, resource flows, social identities, labour markets, regulation, curriculum reform)
Applied research and advisory services	Driven by the client or partner, but nominally including conventional literature reviews, qualitative and quantitative methods	South African National Urban Framework; position papers for UN Habitat or Cities Alliance; advice to donors on urban issues and urban/planning curriculum and professional reform	Engage with decision makers; influence the development agenda to advance a stronger urban focus; assert the normative base of African urbanism; impart useful knowledge and skills to urban practitioners
Embedded researchers and practitioners in co-production	Driven by practitioners' generated data and policy imperatives	City of Cape Town indigent policy, green economy, energy and climate policies	Language for understanding the current constellation; legitimate analysis of what needs to shift within public institutions; learn by using academic and local knowledge of practice
City labs	Mixed methods characterized by a strong inter- and trans-disciplinary focus	Urban health, ecosystem services, human settlements, culture, ecology, alcohol, violence as well as area based city labs	Create epistemic communities or action networks within the academy and between the university and other knowledge actors; transdisciplinary and action research evident
Professional networks	Translational (see text)	Hosting and enabling large comparative projects, e.g. MUF (http://www.mistraurbanfutures.org/en) or AFSUN (http://www.afsun.org) or Professional urban Networks e.g. AAPS (http://www.africanplenningschools.org.za)	Insert an African component into international research and activities; build African urban research capacity and African networks; stimulate published research
CityScapes	Combining long-form reportage with visual methods; story-telling; opinion pieces to promote considered polemic	http://www.cityscapesdigital.net	Foster a compelling discourse across the global South between informed and lay urbanists that is trained on the emergent contexts in all of its richness
Exhibitions	Articulating research findings through story-telling and visual method connected to research by design studios; gaming with youth to generate emergent insights	Draws an evidence base from all of the above	A creative means to engage a popular audience and instil a deeper societal interest in the city and urban policy issues and clarify where academic research remains obscure and unsure in its applications

Figure 4 African Centre for City's multiple modes of exploration (Parnell & Pieterse, 2016)

The second purpose-driven organising framework was developed by Jacques du Toit originally as part of his PhD thesis at the University of Pretoria (Du Toit, 2010; Du Toit *et al.*, 2017).

The framework was developed to assist in analysing the nature of South African planning research theses, and built from the work of a number of 'methodologists'. A useful distinction between types of organising frameworks is made: "Methodologists differ in their criteria for classifying designs. Some criteria pertain to aspects of control (experimental vs. non-experimental designs), time (cross-sectional vs. longitudinal designs), methodological approach (quantitative vs. qualitative designs), etc." (Du Toit, 2010)

Du Toit's framework chose to employ core logics, or 'compact formulas', that indicate the objective of a study as a main organising element. These are then associated with research design types and sub-types. The core logics include generalisation, causal attribution, prediction/ illustration, hermeneutical interpretation,

ethnographical/ phenomenological interpretation, contextualisation, intervention, evaluation, and participation/ action.

Figure 5 indicates how the various core logics relate to research design types and sub-types.

Research designs	Core logics	Subtypes
Surveys	Generalization	Cross-sectional surveys Longitudinal surveys
Experiments	Causal attribution	True experiments (aka laboratory experiments) Quasi-experiments (aka field/natural experiments)
Modeling, simulation, mapping and visualization	Prediction/illustration	Modelling; simulation Mapping; visualization
Textual and narrative studies	Interpretation (hermeneutical)	Content/textual analysis Discourse/conversational analysis
Field studies	Interpretation (ethnographical/ phenomenological)	Historiography; biography Ethnography (aka participant observation) Phenomenology
Case studies	Contextualization	Single/multiple case studies Comparative case studies
Intervention research	Intervention	Site/settlement analysis and assessment Plan/policy analysis and assessment
Evaluation research	Evaluation	Diagnostic/clarification evaluation (aka <i>ex ante</i> evaluation) Implementation evaluation; program monitoring Outcome/impact evaluation (aka <i>ex post</i> evaluation)
Participatory action research (PAR)	Participation/action	Technical/scientific/collaborative PAR Practical/mutual and/or collaborative/deliberate PAR Emancipating/enhancing/critical science PAR
Meta-research (Non-empirical studies)	Various core logics depending on the objectives of a study	Literature reviews; research synthesis Conceptual analysis Typology/model/theory construction Philosophical/normative/logical argumentation

Source: Adapted from Du Toit and Mouton (2012, 128)

Note: Intervention, evaluation and participatory action research may also be considered 'types' of research rather than standalone designs considering that each of them often combine different designs. E.g., an evaluation may well include both a survey and field research component. Still, these three types of research are considered standalone designs here due to their unique core logics. Thus, if the overall logic of a reported study was evidently one of evaluation, we would have coded its design as such irrespective of whether the study included different sub-designs.

Figure 5 An index of designs applicable to planning research (Du Toit et al., 2017)

2.3 EXPANDING THE ORGANISING FRAMEWORK

Building upon these organising frameworks, especially du Toit's, it is possible to begin to map some of the housing and urban studies research logics and associated methods (Figure 6). The first layer out from the centre of the diagram shows the core logics as conceptualised by du Toit (Du Toit *et al.*, 2017). To these we have added several extra categories, normative forecasting, sourcing and analysing big data, and research that is designed to produce policies, guidelines and frameworks.

Normative forecasting, such as scenario planning and roadmapping methods is often a mix of methods, but the combination of research and engagement activities are devoted specifically to generating and exploring varieties of future states. With rapid technological and spatial change being experienced globally and especially on the African continent, forecasting possible future states of housing, settlements, neighbourhoods,

precincts and urban conurbations can be a worthwhile endeavour. There are already an array of urban futures projects and projects to collaboratively re-imagine a more desirable future at various spatial scales.

In *Futures Research Methodology* (Glenn & Gordon, 2009), the authors distinguish between normative forecasting and exploratory forecasting to differentiate between method options. "*Normative forecasting addresses the question: what future do we want? What do we want to become? Exploratory forecasting explores what is possible regardless of what is desirable*" (Glenn & Gordon, 2009, p. 7). After using these distinctions to create a simple taxonomy of futures research methods, their 'model of analysis' helps to assess and understand methods from a futures perspective.

Futures research methods can be used by various disciplines as there is a general understanding of what constitutes a futures study, or a prospective study, which can be adapted accordingly. One element worth noting (as one of Sardar's four laws of futures studies) is that these studies deal largely with complex, interconnected (sometimes referred to as 'wicked') problems (Sardar, 2010), which in turn require innovative strategies and solutions through thorough application of quantitative and qualitative methods.

There are some methods that are more applicable to futures studies, such as modelling, and these may be sorted into categories including heuristic modelling, decision modelling, agent modelling, and statistical modelling. 'Scenarios' is also an umbrella-term for a range of predictive methods. Other methods addressed include simulation, various methods of data and information analysis, case studies, trend impact analysis, and causal-layered analysis.

Secondly, the use of 'big data', or large datasets which are often combinations of interrelated datasets, to identify patterns and trends across space and society is a fairly recent entry into the research sphere. This allows observations of human behaviour at a much wider scale than was previously possible. Disciplines that work with such datasets are already developing and enhancing the computing power and the analytical tools to interpret such data. It is suggested that housing studies could look at this area more closely for potential new ways to understand complex systems such as growing cities and settlements, and the relationship between people, their choices and the built environment.

Thirdly, the production of guidelines, frameworks, policies and the like, although it might not fit into the primary research category, it is certainly a higher level, strategic research activity. The development of approaches such as Regulatory Impact Assessment to test the possible impacts of draft housing and settlement policies is a good example of a research approach that combines modelling, costing and scenario planning to predict likely outcomes of policy.

3 CONCLUSION

Although the process of mapping housing research methods as presented in this paper needs to be taken further, and we need to employ participative methods in its extension, this review of research concepts and organising frameworks has helped us to initiate the process.

By encouraging a conscious revisiting of research methods, this paper has attempted to contribute towards building of a more capable research community founded on increasingly rigorous and scientific methods. Quality research should inform practice (and vice versa). The adequacy of the results of research is dependent upon the adequacy of the methods used (McNelis, 2016) and, therefore, good decision-making requires adequate, effective data and information.

With more sophisticated housing theory (designed to interpret increasingly complex housing and urban systems), and more appropriate, rigorous and up to date research methods, the process and findings of research can make a stronger contribution to shaping housing policy and programmes, and influencing the many actors in the broader housing sector. A variety of theories and approaches addressing regional, national or local contexts is healthy, allowing us to triangulate results and compare recommendations. The more academic pursuit of higher level theories aimed at better understanding complex reality, developing sound normative positions (of what should be), and enhancing the ability to predict outcomes is as worthy a pursuit as both positivist, empirical, applied policy research, and the deep, qualitative documentation of unique, local realities.

Schools of thought that respectively apply universalistic approaches and those that apply particularistic approaches (Kemeny & Lowe, 1998) can benefit from frequent interchanges of knowledge. The identification of large trends and patterns across society provides part of the picture, and a deep knowledge of what motivates people to behave in certain ways, helps to understand some of the causal links and provides the other part of the picture. Through mapping current and potential new research methods, it is hoped that the overlaps between the disciplines that can contribute to housing studies will become more apparent, thus

highlighting areas of prospective multi-disciplinary collaboration. Each discipline tends to have specialised methods, tools and techniques, however, with changing trends in housing and urban research and the technologies that can assist with understanding complexity, there is a need for continuous review of the field's direction and the roles of different specialisations.

The increasing interest in recent decades in translating evidence into policy change has highlighted the need to disseminate the findings of research as widely as possible, through both academic and non-academic media. If advances in science, technology and innovation are to make a more effective contribution to achieving better housing, the role of sound research and effective knowledge sharing need careful attention from all researchers.

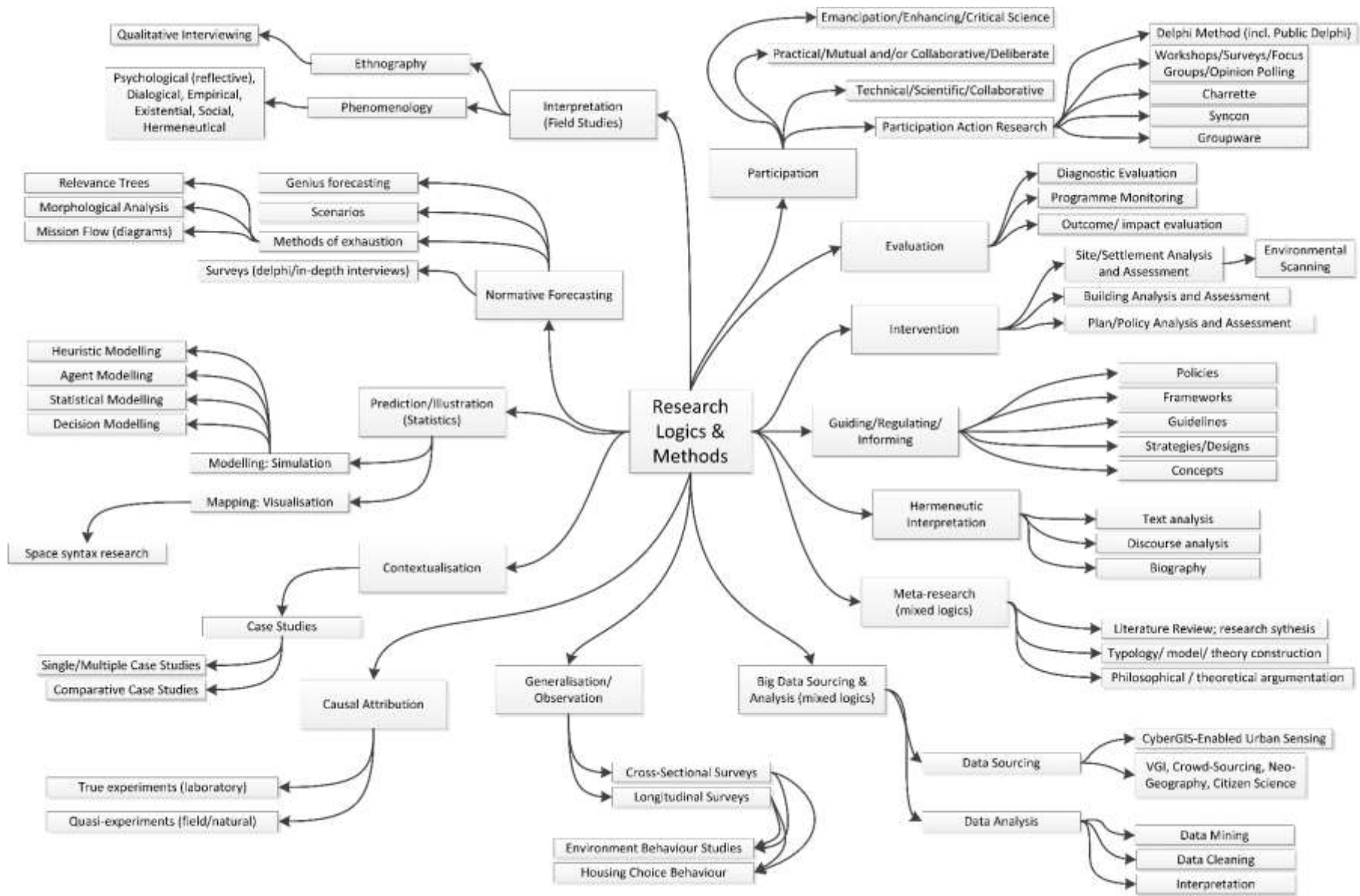


Figure 6 Mapping of research logics and methods (after du Toit)

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