Advancing Community Engagement Practice for Strategic Urban Planning: Learning from Allied and Remote Disciplines

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Abstract: Urban planning has the potential to draw on allied and remote disciplines to improve community consultation processes for strategic planning projects. Urban design and landscape architecture have quantitative and qualitative methods which can be utilised to visualise different options of urban intensification which may fit within communities' expectations of change. Furthermore political science has long used scientifically established psychometric techniques to collect data from broad sections of the population, analysing demographic profiles of communities and understanding their perceptions and attitudes. By appropriating quantitative and qualitative methods from other disciplines, urban planning policies can be developed which may reflect communities' aspirations of amenity and neighbourhood character. The aim of this paper is to assist local government urban planners with their community engagement practice in order to form policies which are acceptable to the affected communities. The paper draws on Victoria as a case study of community engagement practice, examines research methods from allied and remote disciplines and proposes a community engagement framework which introduces rigour within the community engagement process.

Key Words: Community engagement, strategic planning, quantitative research methods

Introduction

With urban intensification on the public policy agenda promoting sustainable urban form, the need for public participation in the development of effective planning policy has been growing in importance over recent decades. Community engagement tools have become increasingly important for those charged with implementing urban planning policy – for the most part, local government planners. The tools are needed to help planners develop local urban intensification policies which are community responsive. However, while there are a large number of engagement tools to choose from, many are often used which do not necessarily result in information which reflects the demographic profile of a community – information is collected from small sections of the community which does not necessarily represent broader community views.

Local governments are increasingly seeking new ways to engage with communities through a variety of productive avenues. Yet strategic planning still lags behind with an accepted method to consult and engage with communities about proposed policy changes. Consultation processes often lack rigour in data collection upon which major strategic decisions are based, thereby undermining government's capacity to make quality and informed planning decisions.

Other disciplines however utilise methods which are more rigorous and can potentially be used by urban planning to improve policy development and consultation processes. Urban design and landscape architecture have quantitative and qualitative methods which can be used to create different development options which can be shown to communities and stakeholders to test their acceptability, and explore different ways of achieving amenity and neighbourhood character outcomes. Furthermore political science has long used scientifically established psychometric techniques to collect attitudes and perceptual data across broad sections of the population, and have used this information to inform and persuade communities of the merits of their political party platforms. Urban planning has the potential to draw from these disciplines to improve community consultation processes for strategic planning projects.

The aim of this paper is to assist local government urban planners with their community engagement practice in order to form policies which are acceptable to the affected communities. The paper proposes a community engagement framework which introduces rigour within the community engagement process by drawing on research methods from design disciplines, psychology and political science, to provide more rigour within the engagement process in order to systematically more broadly represent the views of affected communities.

1. Current community engagement practice

The success of implementing planning policy is largely dependent on its acceptability to the communities where urban transformation is targeted. This often poses a challenge and requires

planning practice by local authorities to develop democratic and adaptive processes, beyond the scope of current legislated procedures, which can spatially target and model development interventions to inform community members of planning policy outcomes.

When delving into communicative and collaborative planning theory (for example Jacobs (1961), Davidoff (1965), Sandercock (2000)), the complexity of adapting planning practice to respond to diversities within communities is apparent. This is exacerbated within local governments, who sit at the coal face of planning policy development, by confusion around what engagement or participation might mean and what tools or practice that might involve, what outcomes might be pursued as a result of engagement processes, and how information might inform decision-making (Brackertz & Meredyth 2009).

It is clear that many Australian communities are places of ethnic and cultural diversity, and local government planners at the coal face of planning practice struggle to respond to the call for greater public participation because of lack of knowledge, skill and budget.

Whilst it is impossible to have every opinion within a community heard in the development of planning policy, an engagement method which is able to systematically and representatively tap into the diversity of communities has the potential to be useful to local government planners. Such a method has the potential to contribute to a broader acceptance of planning policy if the policy more broadly represents the views of the affected communities.

1.1 The Victorian Context

The previous Victorian State Government published *Effective Engagement: building relationships with community and other stakeholders* (Department of Sustainability and Environment 2005a) primarily for state government staff and practitioners involved in engaging with communities and stakeholders across the public sector. The publication provided a snap shot of Victoria's diversity and the importance of awareness of diversity within communities and *"within commonly used community or social categories"*. It was to be used as a tool kit for bureaucrats to draw on in their work engaging with diverse communities.

The toolkit provides three components of community engagement practice: 1) useful definitions of community engagement; 2) understanding why communities should be engaged with; and 3) setting up processes to be undertaken for projects. Community engagement plans are central to this practice.

1.1.1 How to engage with communities – key processes

In order to develop community engagement plans, *Effective Engagement: building relationships with community and other stakeholders* (Department of Sustainability and Environment 2005a, 2005b) have developed the Engagement Planning Key. It visualises the processes required to develop an effective community engagement plan for any project. From the Engagement Planning Key, the main outputs for the three phases are shown in Figure 1.

Figure 1: Simplifying the Engagement Planning Key. Source: (Author)

Understanding the "who" to engage with, is an important part of the engagement process - who are the stakeholders? Community engagement involves understanding the diversity of communities, and is built around targeting communities which are often difficult to reach.

A central component used by the community engagement sector is the development of a stakeholder list and profile. A number of techniques may be used to produce the stakeholder list, however it is important to go beyond just creating a list of stakeholders: "*it is necessary to understand the complexities of the relationships between stakeholders and their relationship to the project"* (Department of Sustainability and Environment 2005b: 13). For example, Chevalier and Buckles (2008) have devised a social analysis system which can be used to create a stakeholder analysis and

profile because the dynamics and relationships that exist between individuals and organisations are important considerations when defining the optimum engagement type to be used for stakeholders.

It is also important to know what levels of participation are possible in terms of the project aims. The IAP2 (International Association for Public Participation) have developed a spectrum of public participation which is widely cited and used (International Association for Public Participation Australasia 2004). The purpose of the spectrum is: *"designed to assist with the selection of the level of participation that defines the public's role in any community engagement program."* (IAP Australasia 2004).

The Spectrum is important because it aligns the level of influence that different stakeholders have with the type of engagement tool to be used. The public participation goal is important in order to identify the degree of engagement, for example, to: inform; consult; involve; collaborate; or empower. By identifying the goal, the purpose of the engagement becomes clear and the expectations of the possible levels of influence can be communicated to those who participate in the project. It also allows the implementation plan to be developed which identifies the tools of engagement to be used.

Based on the IAP2 spectrum, the Victorian legislative system establishes the level of influence that stakeholders are able to have in policy development. Participation of communities is limited to certain phases of the process, and the two phases are often split in time by many months or even years. The public participation goals in terms of the IAP2 spectrum will vary from 'inform' to 'consult', and in some projects, to 'involve'. The strategic planning process typically, is structured as follows:

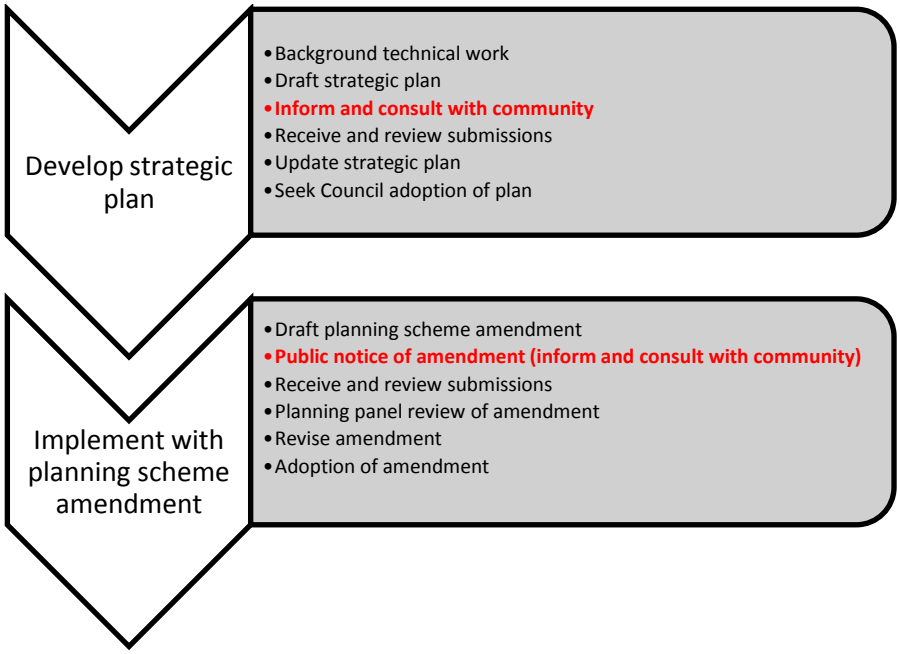

Figure 2: The strategic planning process and identifying the two phases of community participation - Source: (Author)

The suite of tools of engagement which could be used for the broader community is therefore limited to inform, consult and potentially involve (in workshop environments). It is further possible that some stakeholders could be targeted to collaborate in the development of policy (particularly in partnership with other departments or bureaucracies).

Using the IAP2 spectrum, the Department of Sustainability and Environment (2005b) developed a table which classifies the available community engagement tools within the levels of influence that stakeholders are able to achieve. Common community engagement tools for strategic planning projects would include fact sheets, notices or articles in the local paper, information on council web sites, public information sessions, and mail outs to residents.

Other options which could be incorporated into a framework are tools which are listed under the level of 'involve' or 'collaborate'. The final and important part of the engagement plan process as described

by the Department of Sustainability and Environment (2005a) is “Evaluation” – it is important to test that the engagement plan has reached the communities who were targeted. This is an important step which should be built into any further engagement framework.

1.2 Current Engagement Practice

Current engagement practices used by Planning Authorities include:
1. information sessions or public meetings;
2. displays in public places such as libraries and community notice boards in shopping centres; and
3. media releases which lead to articles in local newspapers.

These practices, however, focus on informing communities about a process which is under way, and about draft policies and plans which are already formulated. They are not systematic in their analysis of who forms part of the community, and do not target specific sections of the community.

Some Planning Authorities use the Enquiry or Inquiry by Design (EbD) / Charrette process. , utilised by some Planning Authorities integrates stakeholders and communities into the plan formation in a collaborative dynamic multi day workshop environment, and is utilised before planning scheme amendments are initiated. The EbD integrates urban design, community engagement and planning practice. It is a collaborative design process that enables the integration complex issues into holistic place-based solutions. The engagement of key stakeholders and decision makers usually enables a widely supported design based solution to be developed for a site or area.

For those who are engaged, that is participate, it is usually successful at instilling a sense of inclusion in the decision making process. Its disadvantage is that it is time intensive, and excludes those who are unable to commit to the process. The question therefore of who is participating and engaged in the process is an important one.

Stakeholder identification and analysis is an important and ongoing part of the Charrette or EbD process. It is important to understand who will be affected by the policy change, and therefore who should participate in the policy’s development. A stakeholder assessment is a common part of community engagement practice. However, in both community engagement practice, and in the EbD process, stakeholder assessments usually involve creating lists of stakeholders (eg groups, government departments, individuals etc). The lists then identify the individual or group’s level of influence and importance, and ascertain what their “wins” are likely to be. Lennertz and Lutsenhiser (2006) state: *Determining the win provides the information necessary to convince stakeholders that they should participate. Presenting the project as an opportunity for an individual to achieve his or her win is a way to create relevance and assure ongoing participation. (p 37)*

This information, however, often requires discussions with the stakeholder. This may be appropriate for government stakeholders, and those organised within community or business groups and organisations, however, for the community more broadly, this is impractical. Who is being engaged is critical and hence the question of rigour therefore in terms of community profiling and demographics needs to be explored.

2. Enhancing understanding and awareness – Urban design and landscape architecture practice and research

The EbD or Charrette process provides a useful engagement tool because it allows people to participate in the design solution for a place, for example, a structure or master plan – people can see their input translate into a plan and vision for a place.

Many urban design firms utilise the EbD process or workshop based sessions to engage with stakeholders and develop plans. Most urban design firms however, will be guided by other government officers or others that engage them in the contract to stipulate who they are to engage within the workshops. This may be a fluid discussion, however, urban designers in general, will not be systematic in their community and stakeholder profiling and analysis, and will not utilise quantitative methods.

The scholastic field of urban design and landscape architecture, however, have a rich history of quantitative research, which draws heavily on the field of environmental psychology – a discipline which utilises empirical research methods. Empirical research based methods have the potential to be

useful in planning policy development because they can contribute to the strategic justification of policy and assist with the informing and inclusion of communities in policy development.

William H. Whyte (2007), Jan Gehl (2006), and Kevin Lynch (1960), for example, have utilised empirical research methods to develop their urban design theories. Whyte (2007)and Gehl (2006) both used time-lapse photography, direct observation, and mapping to develop their theories of how people use public spaces, and Lynch (1960) utilised methods in environmental perception such as cognitive mapping, spatial mapping, direct observation and interviews to develop his theory of imageability.

Whilst a complete analysis of urban design and landscape architecture research methods is beyond the scope of this paper, the use of landscape and visual assessment tools as a research method will be examined because of their potential to contribute to the formulation of a community engagement framework for strategic planning. These methods are of interest because they deal with perceptions of place and character. The method used to assess landscapes deals not only with natural areas or the "countryside", but also towns, built environments and neighbourhood character.

How people experience landscapes is a complex area of research which has grown alongside the introduction of environmental legislation in the United States in the late 1960s. There was a need to develop research methods to quantify environmental amenities and values to enable these issues to be given weight in decision making by public authorities (Taylor, Zube & Sell 1987), so that policy would "*stand up under public scrutiny, and provide some measure (often numeric) to compare against economic or technical measures*." (p 361)

Of the four paradigms of landscape perception research methods identified by Taylor, Zube and Sell (1987) (the expert paradigm; the psychophysical paradigm; the cognitive paradigm; and experiential paradigm), the psychophysical paradigm has its origins in experimental psychology, where reactions in subjects are measured against experimental manipulations. From Taylor, Zube and Sell (1987):

> *Evaluation of landscape quality, under the psychophysical paradigm, is done by the general public or by special-interest groups, rather than by experts. This approach assumes that if one wishes to identify or design landscapes of aesthetic appeal for the public, the most direct way is to test samples of the general public to learn what they find appealing* (p 371).

The psychophysical landscape research has focused largely on elements of the landscape which can be changed or manipulated by designers and land managers: "*these professionals need to determine just what landscape visual quality is in order to be able to manage and protect it*" (Taylor, Zube & Sell 1987: 371). Research within the cognitive paradigm is more concerned with why people value certain landscapes, acknowledging that people process visual information and make judgements based on that information. Both the psychophysical and cognitive research methods can be combined to test people's perceptions of landscapes to understand *"what is valued in landscapes, as well as the reasons for those evaluations."* (p 373)

Within the Victorian context, Green's (2010) work utilises this combination of the psychophysical and cognitive paradigms. Green uses the methods to test perceptions of Victorian coastal landscape and place from the public user perspective. He does this because the practice of neighbourhood character studies within Victoria is based for the most part, on "professional assessment" of character traits – an urban designer or landscape architect will survey the town or area, describe elements of built form and public realm that they perceive contribute to the character, and write a report based on that professionally assessed inventory. Planning decisions are then made based on a "professionals" assessment of character.

Green (2010) argues that the public should contribute to the understanding of what makes up the character of a place because planning decisions and environmental management actions can have greater legitimacy if it can be demonstrated that the community's opinions have been considered, as well as creating enhanced community acceptance of the policy.

The method Green (2010) uses *"seeks to analyze preferences for landscapes by statistically linking physical characteristics with the perceptual responses of potential users"* (p 41). The usefulness of this method is that it can deal with character and understand what its attributes are, it is quantitative and can be applied to a representative sample of the community thereby ensuring a level of validity of the data (this will be further explored in the next section), and it can be enhanced by utilising computer generated simulations and visualisations.

Landscape assessments have traditionally used photographs to elicit responses from those surveyed. The potential to enhance this tool through visualisation aides is growing with the development of digital technologies and 3-D modelling capability. This is enabling decision makers to participate in "what if" scenarios and see digital models of strategic planning interventions, thereby becoming an important planning support tool, and assisting with the documentation of strategic justification for policy development.

For example, Ghani, Datta and Beynon (December 2011) presented their collaboration between Deakin University and Wyndham City Council which developed a 3-D model and visualisation to assist council with their local structure planning and decision making processes. Rollo, Esteban and Smith (December 2011) discuss the use of 3-D modelling and visualisations within a Deakin University studio environment where students collaborated with local governments and worked on strategic design projects. The studio outputs were used to *"engage in positive discourse between members of the architectural profession and construction industry; local communities; and both state and local government"* (p 3237).

Digital visualisations have also been recently used in Melbourne to test the level of acceptance by local resident groups of densification of transit corridors in activity centres. Woodcock, Dovey and Davison (2012) utilised abstracted images to ascertain how residents would respond to changes in building bulk and height within a streetscape. The images represented fully developed streetscape visions which improved urban amenity. The purpose of the visualisations was to determine resident responses to urban intensification scenarios. Instead of using a random sample of residents to present these images to, the researchers, in a semi-structured interview, presented the images to *"a highly specific cohort, representative of those who not only take an interest in development issues but are active in resisting urban intensification"* (Woodcock, Dovey and Davison 2012, p 66).

By utilising imagery that represents changes to existing streetscapes, researchers have the ability to explore resident responses to different scenarios of change, and explore varying factors that policy developers can modify within planning regulations. Researchers are then able to test the acceptability of intensification scenarios and quantify the impact this may have on fulfilling broader strategic planning objectives such as housing density requirements.

The next section will examine empirical research methods within the social sciences in the fields of psychometrics and political science. The discussion will look at these disciplines and the potential of the adaptation or incorporation of their methodology into a community engagement framework or strategic planning.

3. Introducing Rigour –Psychometrics & Political Science Practice

The following section will introduce some of the more rigorous theory and methods of psychometrics along with their application within political science.

Many Australian communities are places of great diversity. The testing of community attitudes towards policy changes needs to reflect this diversity within communities, and requires research methods which measure diverse people's opinions and attitudes. Measuring people's opinions and attitudes is a core component of psychometrics and political science.

Psychology and political science as scholastic fields draw on a broad field of research methods, including quantitative approaches, and statistics is an important tool within quantitative research. From McNabb (2004), "*a variety of statistical tools are used to test ideas or concepts and to communicate research findings*" (p 100). It is the domain of quantitative research methods which are of particular interest to this paper and the development of a community engagement framework because of the property of rigour that is inherent to quantitative research design.

Psychometrics is a field within psychology and is defined by Rust and Golombok (2009): "*psychometrics is the science of psychological assessment*" (p4). The field is widely used in education, clinical and occupational contexts. Key concepts within psychological testing are reliability, validity, standardisation and normalisation. These relate to the process of measuring. For example, Green (2010) used a landscape assessment tool to measure perceptions and attitudes towards landscape. Yet how do we know that the survey which was conducted actually measured those variables, that is, people's perceptions and attitudes?

Psychometrics is important because it is an area which utilises empirical methods and estimates to ensure that tests and assessments are reliable, valid, standardised, and free from bias: "*psychological tests are useful only to the degree that they accurately reflect true psychological differences*" (Furr and Bacharach 2008: 81). These elements of testing are important because they enable research to have an element of rigour, or to have qualities of care, consistency, precision, and accuracy, qualities which could assist the development of policies which stand up to public scrutiny.

Political science research is also potentially useful to assist with the development of strategically justifiable policy and effective community engagement practice because of their polling and sampling methods. It is rarely possible to measure an entire population. When engaging with communities, it is not possible to engage everyone within a community and to seek their opinions or attitudes. Conducting research using samples of people therefore is an important technique, and the samples need to have the quality that they are representative of the overall populations or communities under investigation.

Political science research often deals with large populations, and therefore utilises sampling methods to tap into targeted audiences to test public opinion or issues which are pertinent to a society. Often they utilise stratified samples which have multiple characteristics of interest to the researcher. For example, the sample might have multiple attributes which reflect the demographic profile of a community. This is a useful process or tool for a potential community engagement framework because it is important to know that the group of people who do participate in the process reflects the broader demographic profile of the study area – it is important to be able to generalise from the sample of participants to the broader population.

Because political science deals with large populations, the professional discipline has developed techniques for reliably sampling large cohorts of people. Polling is a tool often used by professional political scientists. Central to polling is the development of research instruments. These include understanding demographic profiles to underpin samples, developing research survey tools that contain benchmarking questions, and questions which accurately measure opinions and attitudes. Political science draws on the knowledge base of psychometrics and the principles of reliability, validity and standardisation previously discussed.

4. Contemplating a more rigorous community engagement framework

The discussion on community engagement introduced the IAP2 spectrum and engagement tools which enable various levels of community influence over final decisions. The importance within community engagement planning - of stakeholder identification, profiling, and evaluation - was also highlighted along with design and social science research methods which argued the usefulness of quantitative research methods and polling. In order to draw on the rigour or design focus which these methods and processes offer, a community engagement framework for strategic planning should incorporate each of the following components:

- Acknowledge the IAP2 spectrum and include engagement methods which not only inform and consult communities, but also allow stakeholders to be involved and collaborate.
- Identify and profile stakeholders, & utilise demographic and census data to assist with this.
- Include quantitative research methods such as polling which reach a sample of the population which represents the demographic profile of the study area.
- Incorporate quantitative visualisation methods which can enhance understanding of alternative policy interventions on a place.
- Evaluate the success of the engagement process.

This section draws the paper to a close by presenting a draft conceptual framework which attempts to introduce these aforementioned components. The framework applies and augments the *Engagement Planning Key* (DSE 2005b) to the relatively specific task of developing strategic planning policy.

4.1 Identifying the Gap

The framework attempts to counter current limitations in the strategic planning process where policy development is split from implementation via a planning scheme amendment process.

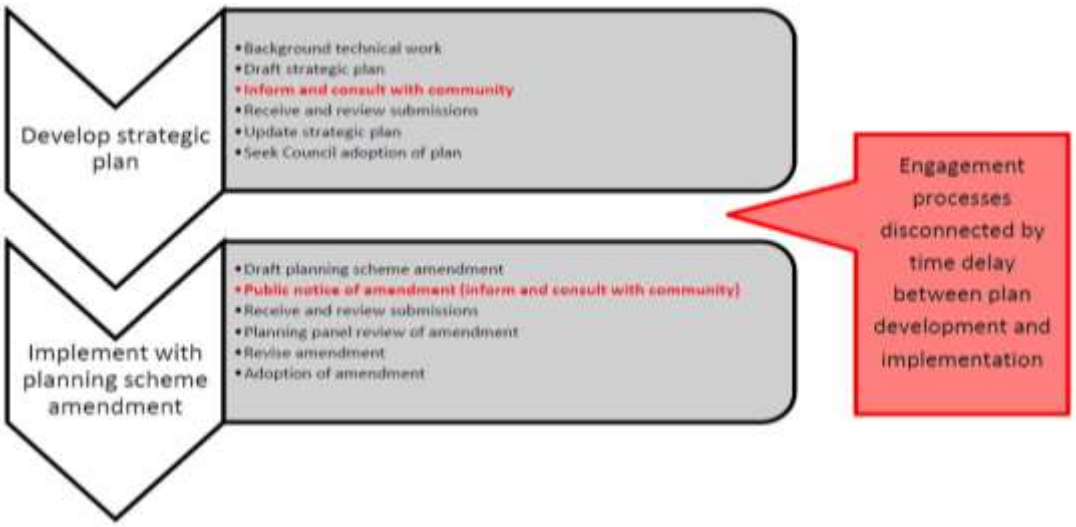

Figure 4: Disconnection within the current engagement process - Source: (Author)

The above image highlights the disconnection between policy development and implementation which arises in current strategic planning practice. Building on this deficiency, the draft conceptual framework presented below, suggests bringing the implementation phase forward by preparing the required amendment documents as part of the policy package. This could enable the time lag between policy development and its implementation through the legislated amendment process to be reduced, while enabling the "good will" that is usually generated within communities by engagement processes, to be nurtured early and carried into the planning scheme amendment phase.

The framework also draws on the IAP2 spectrum by including engagement tools which extend the public participation goals from "inform" and "involve" to "involve", "consult" and "collaborate". The framework also integrates mixed research methods which are both qualitative, quantitative, and visual, thereby introducing rigour and design into the process. Stakeholder profiles are developed not only using collaborative workshops, but also with the use of census data to develop demographic profiles of the broader community. This enables population data to be used as a basis for reviewing who is to be engaged with and making sure that the proportions of those represented reflects the various communities sub categories in the location. This enables a check process to occur to potentially target sub groups of the community who are not represented in the process.

4.2 Structuring the Engagement Framework

The framework is divided into eleven sections which are separated into three stages: ***Scope***, ***Engage*** and ***Implement***. Two columns run parallel to this structure which indicates where rigour has been strengthened into the process through ***'Research type'*** (ie Quantitative and Qualitative) and the ***'IAP2 Spectrum'*** (ie involve, consult and collaborate).

Stage 1. Scope has three main components, 1) *In house Scoping workshop - What If?*, 2) *Project Inception,* and 3) *Stakeholder List and profiling*. The Scoping workshop is designed to be an in house exploratory process to assist local government authorities in reflecting on their current position with regards to skill and knowledge base resourcing and to begin considering aims, objectives and scope for establishing a project brief. Project Inception is the point at which a project team has been established and earmarks its commencement. Stakeholder list and Profiling includes workshops with key internal staff (and possible external consultants) to identify stakeholders, as well as census data research to establish a demographic profile of the community.

Stage 2. Engage, has five sections. While three of these, 1) *Polling*, 2) *Enquiry by Design*, and 3) *Evaluation Polling*, run sequentially, the fourth section, comprising the *Community Reference Group*, runs parallel to this sequence and provides a structure for maintaining continuity of engagement from the scoping stage through to the planning scheme amendment phase in Stage 3. A similar parallel process *Media Materials* provides for a media led community awareness campaign (which would include digital / internet resources).

To minimise the risk of a breakdown in the engagement process, and to counter the deficiency of current practice, this second stage introduces rigour into the framework through quantitative and qualitative research types, and the IAP2 Spectrum of involvement, consultation and collaboration. The aim of polling at the outset of the engagement process is to benchmark and test community attitudes and perceptions to key policy interventions. Furthermore, it is important that the tests are applied to a representative cross section of the community. Once the profiling objectives of the polling process have been satisfied the second step of the engagement stage is the facilitation of an Enquiry by Design process. This enables spatial and design responses to be developed and tested. Scenarios of intervention or change can be established, and visualisations surveys could be imbedded into the Enquiry by Design process to further explore attitudes and perceptions to policy change. Upon completion of the Enquiry by Design process a second polling stage is conducted which evaluates the outcomes of the workshop. It would measure whether the engagement process was successful, and if the proposed policy changes reflect acceptable change within the community.

Stage 3. Implement, presents the final phases of the Framework and comprises three sections:
1) *Develop Draft Structure Plan and Planning Scheme Amendment*;
2) *Council Adoption Process*; and
3) *Planning Scheme Amendment Process.*

By developing the draft amendment package alongside the structure plan or strategic policy, Council processes can be shortened by obtaining Council resolutions to adopt the policy position, and commence the amendment process. This effectively eliminates a Council reporting cycle from the process. A further engagement process is imbedded in the amendment process as required by legislation.

Conclusion and Further Research

This paper has considered community engagement practice for strategic planning within the Victorian context, and developed a Conceptual Community Engagement Framework for strategic planning projects. The development of the Framework was supported by the first three sections of the paper. Section one examined current community engagement practice. Sections two and three examined how other disciplines, such as urban design, landscape architecture and the use of psychometrics within political science, can contribute to introducing further rigour into community engagement practice and legislated planning processes.

Whilst it will not be possible to engage all who are affected by strategic planning policies, if the values of democratic processes are to be pursued and upheld, then processes which seek to reach as many people as possible are necessary. If this aim is to be realised and acted upon then it is important that the conceptual Framework presented above be explored as one possible solution, expanded upon and interrogated through testing and validation. This will be the focus of further research.

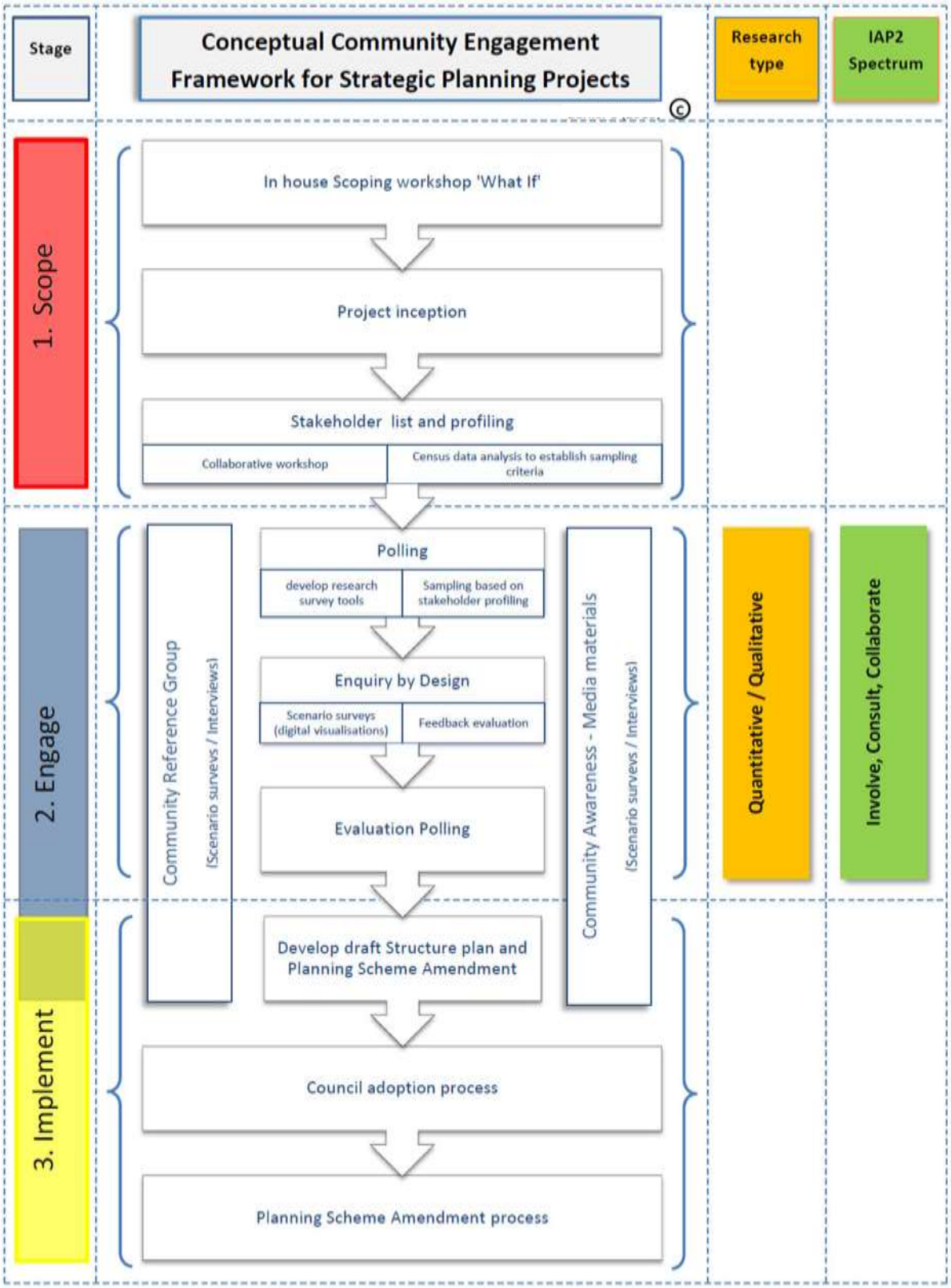

Figure 5: Draft conceptual community engagement framework - Source: (Author)

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