

FROM IS TO OUGHT – FORMALISING PUBLIC SECTOR BRIEFING FOR HOSPITAL BUILDINGS

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INTRODUCTION

Transforming strategic plans into physical infrastructure requires the preparation of briefing documents for the professional team. This task is both complex and specialised; particularly in the case of health-care infrastructure.

According to the standard services for architects as detailed in Board Notice 161 of 2001, Architectural Profession Act, 2000, the firm is responsible in work stage 1 (appraisal and definition of project) to **receive**, **appraise** and **report** on the client's requirements (with particular regard to site, information, planning and statutory regulations and budget) <my emphasis>. Preparation of the brief thus lies beyond the scope of the standard services provided by architects and other built environment professionals. However, as building environment is beyond the core business and (frequently) expertise of the user client. The brief is thus generally, and appropriately the co-responsibility of the user with health-care knowledge and built environment professional (either as an extension of standard services or as an independent consultant).

For structural configuration reasons arising from the Constitution, which are discussed in detail below, there are substantial variations in the methods to preparing health-care infrastructure briefs in South Africa, and, correspondingly, significant variations in the outcome of the procurement process.

Some formalisation of the briefing system, which may involve a combination of interventions such as installation of national norms, standards and guidelines, compulsory peer review mechanisms, and human capital development (there are few specialised courses in South Africa to address health-care building design or briefing) may well yield improved hospital buildings.

This paper explores ways in which briefing documents are prepared for public sector hospitals both in South Africa and abroad. Notwithstanding the particular opportunities and constraints of our context, to what extent should South Africa formalise briefing procedures in order to improve hospital buildings?

METHOD

In order to address this question, the following method, discussed more fully in the paper, was adopted. First we attempt to define more carefully what a briefing document is, and to describe the South African context. This is followed by a literature review which was undertaken to explore some international brief writing practices. A rapid survey was undertaken in an attempt to understand the South African situation both in terms of how it currently functions (what is), and how contemporary South African public health-care infrastructure brief writers perceive that the process should be conducted (what ought). In the section “thoughts about ought”, best practice and the South African context are discussed.

WHAT IS A BRIEF?

Construction briefing is the process of communication of instructions, intentions and objectives from a client to its consultants. Whilst the direct target group for a briefing document is the consultants (built environment professional team who will be developing the building design), the audience is also the client itself (in ensuring that its instructions, intentions and objectives are clearly and unambiguously communicated) and in the case of the public sector, the target audience is may legitimately be extended to include the public (both in it’s capacity as taxpaying financier and ultimate client).

According to scholars, (Ryd, 250) a brief is a formal document¹ and should include:

- The background, purpose, content and desired outcomes of the project
- The functions of the intended facility and the relationship between them
- Cost and time target
- Instructions on procurement and organisation of the project; and
- Site and environmental conditions, safety, interested third parties and other factors which are likely to influence the design and construction of the facility

Brief writing is widely regarded as something to be developed or gradually unfolded. However there are two basic distinct conceptions of briefing documents: one which considers the brief to be a finite thing which should be frozen (RIBA), and another which regards the brief as a dynamic document involving ongoing evolution, throughout the building lifecycle.

There are several methods to developing briefs, and usually a combination of methods is used iteratively and non-linearly (See Figure 1)

¹In South Africa public sector briefing documents are occasionally not formalised in writing!

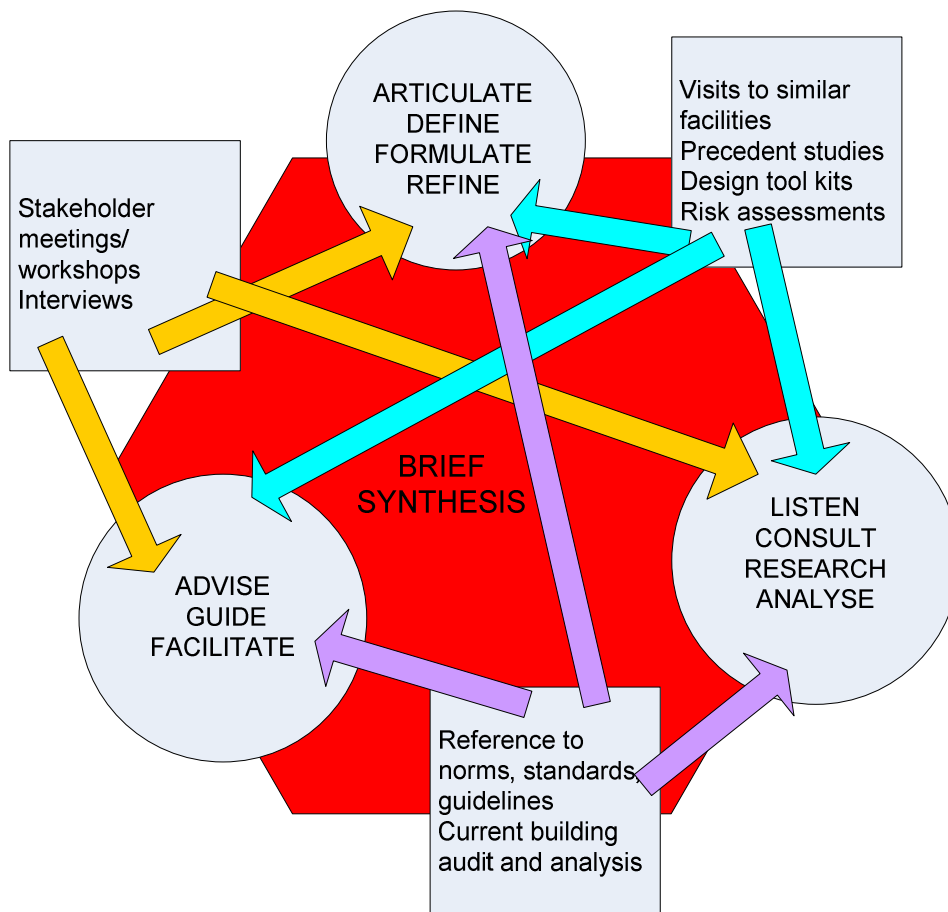


Figure 1: Methods and processes of brief formulation

Of the contents some is likely to comprise non-negotiable or “fixed” requirements (e.g. regulatory frameworks), whilst others may reflect preferences or “wish-lists”. Interpreting and communicating the degree to which something is a requirement or merely a request, as well as what comprises essential information requires context sensitivity and experience. For these reasons, domain knowledge and experience are frequently cited as critical for the formulation of adequate briefing documents.

Gribble points out that whilst a critical aspect of brief writing is transforming strategic requirements into spatial terms, there is no logical way to translate functional needs into architectural form because the two are not commensurate (12). The only available basis for this mapping is cultural and domain specific knowledge.

Late changes to a brief are considered a major source of dispute and litigation globally throughout the construction industry (Yu, *et al.*, 209)) In an endeavour to eliminate brief changes during the construction process, the Royal Institute of British Architects (RIBA) Plan of Work, updated and approved by the Council in 1998, freezes the modification of the project brief after the detailed proposal stage. However, this is not always instituted in practice for various reasons, including that “late” changes enable client organisations to more fully meet their emerging requirements, meet user needs, cope with regulation changes, exploit business opportunities, adapt to technology improvements, add value and manage risk.

The RIBA Plan of Work states that a brief is normally developed in three phases. In the first phase, the client establishes the need for the project objectives, say by means of a business case (feasibility studies and/or options appraisals). Secondly, the strategic brief is enriched with sufficient information for consultants to commence

the design process. In the third phase, the project brief is developed from the strategic brief in parallel with outline design proposals and detailed proposals. At this point, the brief is frozen.

In Australasia the brief is referred to as the Project Definition Plan (see **Table 1**). Guidance for those involved in briefing for healthcare infrastructure applicable across Australasia is included in the web-based Australasian Health Facility Guidelines (HFG), as part of an extensive suite of guidance material. The document (see <http://www.healthfacilityguidelines.com.au/>) forms part of a suite of documents which are prepared for a project. It is distinguished from a Service Procurement Plan or facility business case.

The concept of the suite of guidance material is to enable health facilities throughout Australasia to use a common code of practice and including room data sheets and detail layouts of standard spatial components. In addition to this, schedules of accommodation, functional relationship diagrams (see **Figure 2**), and decision matrixes (for example for risk assessments) are recommended content for briefing documents.

Document / information	Source(s)	Comment
SSP/Feasibility Study.	<ul style="list-style-type: none"> - Commissioning health organisation. - SPP consultant. - Funding body - asset management group. 	<ul style="list-style-type: none"> - These documents can be difficult to locate because of time elapsed. - The documents may be subject to intellectual property rights and commercial in confidence agreements. Permission should be sought through the project client. - The level of detail available will affect the quality, level and scope of the comparison.
Design Brief / PDP.	<ul style="list-style-type: none"> - Client organisation. - PDP consultant. - Architect/health facility planner. 	Minimum requirement.
Service Plan includes demographics, epidemiology, service and care models, priority/target groups, local determinants of health priorities.	<ul style="list-style-type: none"> - Client organisation. - Service planners. - Clinicians. - Community consultation record. 	It is important to obtain the information used by those who planned the facility. Check against the documents listed in the SPP. Check dates and titles of documents.
Description of Functional Relationships & Master Plan documents.	<ul style="list-style-type: none"> - PDP team or PDP consultant. 	This information is essential for understanding comments made by respondents regarding functional and operational issues. May be included in the PDP.
As Built Floor Plan.	<ul style="list-style-type: none"> - Project manager. - Facilities manager. - Architect. 	This information is essential for understanding comments made by respondents regarding functional issues.
Results of community consultations and other stakeholder meetings including reports where available.	<ul style="list-style-type: none"> - SPP team or SPP consultant. - PDP team or PDP consultant. 	May be included in the SPP/PDP.

Table 1: source Carthy (8)

The guidance on briefing is extensive and covers issues of:

- role delineation,

- capital development guidelines,
- cost planning guidelines,
- cost and area benchmarks,
- recurrent costs
- environmentally sustainable design
- natural disaster
- occupational health and safety
- access
- infection control
- culture and health as an element of design
- engineering services/standards
- information and communications technology
- standards and codes
- fittings and fixtures
- operational policies

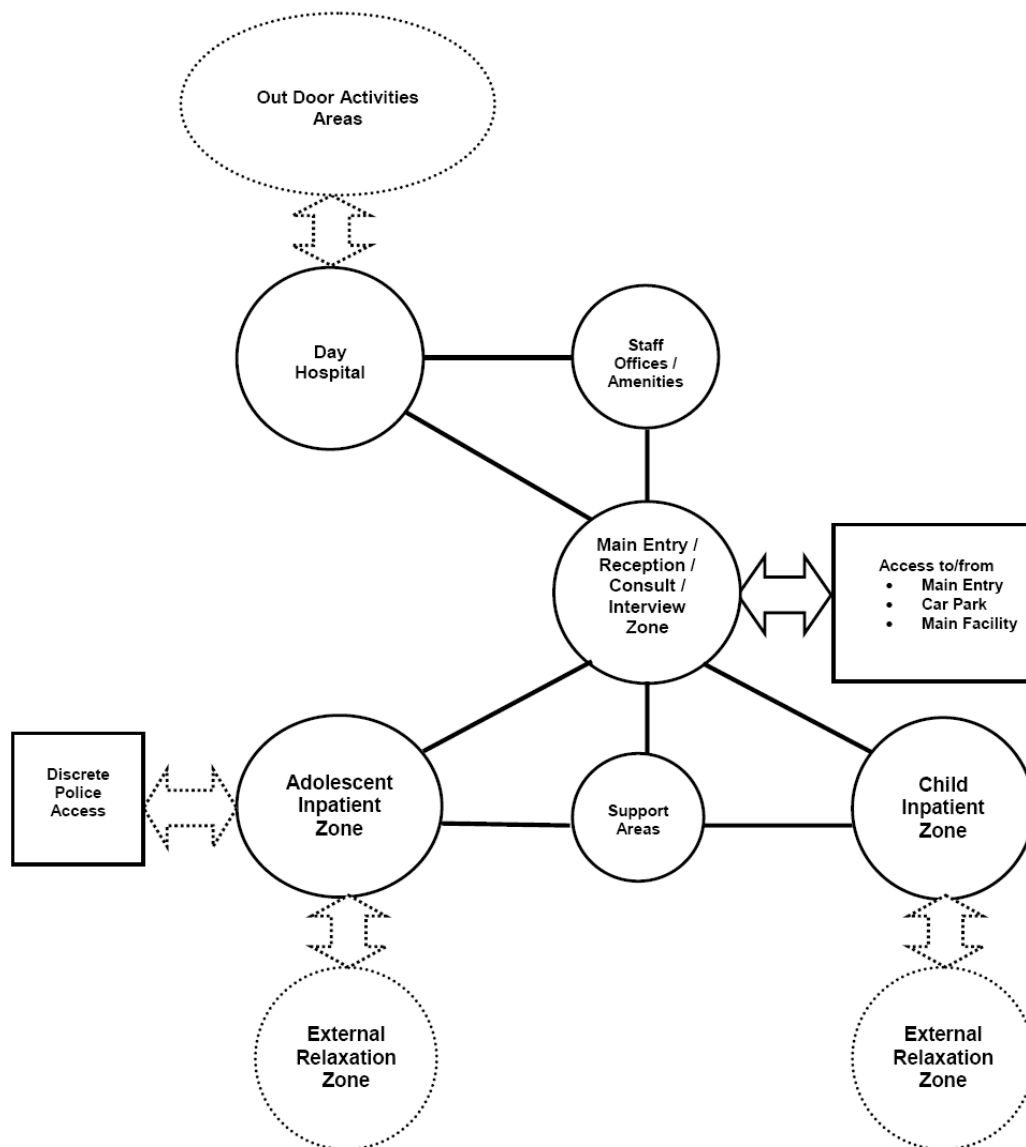


Figure 2: source HFG

In the UK, National Health Estates (NHS) has web-based guidance for briefing. There are several such documents, the most generic of which is titled “Advice”. (see

Figure 3) The Design Brief Working Group, comprising a multidisciplinary team² was convened to produce this advice note for Trusts involved in commissioning of new health buildings. The advice notes were intended to be applicable to every scale of project and to embrace areas of briefing that have been absent from design thinking in response to a process which was ad hoc and lacked rigour.

The document describes its underlying philosophy thus:

“Creating a building is a complex activity. Successful buildings are those which provide a match to the requirements of the users and staff, are robust over time in a changing world and are examples of Vitruvian ideals of firmness, commodity and delight (in modern terms, functionality, impact and build quality). The quality of the building depends on the thoroughness of the brief and the quality of its interpretation, and this depends on having people of high calibre who can stay with the project; what is rarely understood is that design intelligence should be present at the strategic phase.” (2)



Figure 3: source Advice (3)

Originally the NHS produced three papers: ‘Basic Thinking Tool – The Wider Context’, which identifies the key areas that must be thought about at strategic and later project briefing; ‘Briefing: Process, Programme, People’ identifies the main components of briefing at the Strategic, Project and Operational phases; and ‘Design Quality Briefing Tool’ which is for use during the formation of the project brief. The tool is based on the ‘Achieving Excellence Design Evaluation Toolkit’ (AEDET), the NHS Estates assessment tool and in this way becomes part of design evaluation and a continuous cycle of monitoring and improving building quality, and integration between phases of the building life-cycle.

² top practitioners in their fields of architecture, design, medical planning, engineering and arts for health

WHAT IS AT STAKE: WHY SHOULD WE GET IT RIGHT?

Throughout the literature studied³ there is the common underlying premise (usually undefended) that draws a substantive link between the quality of the briefing process and the quality of the resulting building. This seems wholly plausible and uncontroversial (or at least it seems unlikely that an excellent building is likely to emerge without a sound briefing process.) Yu *et al* cite that late changes to a brief impact on project time, cost and quality and (209) are considered a major source of dispute and litigation globally in the construction industry.

BARRIERS TO GETTING IT RIGHT

Yu, *et al* (198) have identified the following common problems associated with the briefing process: a lack of a comprehensive framework, lack of identification of client requirements, inadequate involvement of relevant stakeholders, inadequate communication between those involved in briefing and insufficient time allocated for brief.

Othman, *et al* (252) has developed a list thirteen drivers of change in current practice as support for dynamic brief development. Interestingly these common difficulties seem to square with the research undertaken here. However, it is plausible that these drivers can be adequately addressed even in finite briefing systems if anticipated.

The first and most significant issue arises from communication, clarity and understanding. As buildings rarely finish on time or within budget, clients often criticise the fact that the finished building is not what they expected. Clients, particularly inexperienced ones, may find it difficult to describe their objectives and operations to another party, which leads to the production of unclear and incomplete project brief. This becomes a greater problem when the brief writer is not skilled in the art of questioning, and is likely additionally challenging in a context such as South Africa which celebrates a large degree of cultural diversity. In early work phases, lack of presentation and visualisation techniques inhibit the clients' understanding of project design and what the building will look like. Case studies showed that architects are more likely to gain kudos from peer approval than from the satisfaction of their clients and may ignore the role of the client and behave unilaterally. These are factors which have resulted in clients' dissatisfaction and driven them to develop the project brief by changing, modifying, omitting and adding to its contents.

The other issues highlighted by Othman are listed below.

- the absence of accurate feasibility studies,
- the role of value engineering, which is defined as the process of relating the function, the quality and the cost of the project in the determination of optimum solutions for the project. It is argued that initiating value engineering changes contributes to the production of better and smarter designs. However if it is considered that the Departments of Health is a repeat client, this principle could be developed over several projects, rather than in a single project if a feedback loop is incorporated in the process,
- the involvement of project users (e.g. in cases where the user is not the same as the client (as is applicable in public sector health-care facilities where the

³ By no means exhaustive

- end-users - the patients) may not be well represented in current briefing practices)
- coordination and accuracy (a key source of change in the scope or details of construction originate from inaccurate or uncoordinated construction documents)
 - addressing unforeseen conditions (such as surprising geological conditions)
 - inadequate provision of information
 - responding to changing regulations or technological advancements
 - promoting quality and sustainability
 - issues pertaining to cost and time management
 - responding to market conditions and user demands (eg. demographics and epidemiological shifts which may arise)
 - lack of design expertise

ANALYSIS OF STATUS QUO: THE “IS”

THE SOUTH AFRICAN CONTEXT

There are several distinctive and defining features of the South African context, most of which work against consistency in brief production. The number of active, experienced brief writers is very low (apparently numbering well under 50 persons). These persons are geographically dispersed to serve the whole of South Africa. There is very high staff turnover in the public sector, with skilled and experienced staff having been attracted out of public service, or to other opportunities⁴. Where there are established pockets of experienced health facility planning professionals, there is far greater consistency in briefing processes and resulting infrastructure.

There are notably few opportunities for structured career development in health facility planning. Courses are partaken in an ad hoc, contingent, unstructured fashion. Respondents found one speciality series of health facility planning courses especially useful.

Emerging from the Apartheid area, there has been an understandable resistance to any practice regarded as exclusionary. For this reason the Departments of Works has initiated the roster system. Consultants and professionals services are often procured on a “next-on-the list” basis, and not on the basis of prior experience or expertise. This means that for built environment professionals, little incentive exists for consultants to invest in specialised skills development.

The Departments of Health have highly specialised needs. This extreme divergence in custodian (works) and user or line department (health) priorities has posed significant challenges in most Provinces. The degree to which this is problematic varies in direct relation to the complexity of the task (clinics are less complex problem solving tasks than tertiary hospitals, and require less specialised knowledge and expertise). Because of the constitutionally enshrined autonomy of provinces (see **Figure 4**) the difficulty in resolving these differing objectives is left to be resolved at provincial government level.

⁴ It is plausible that the global economic decline may provide a stabilising influence on this trend.

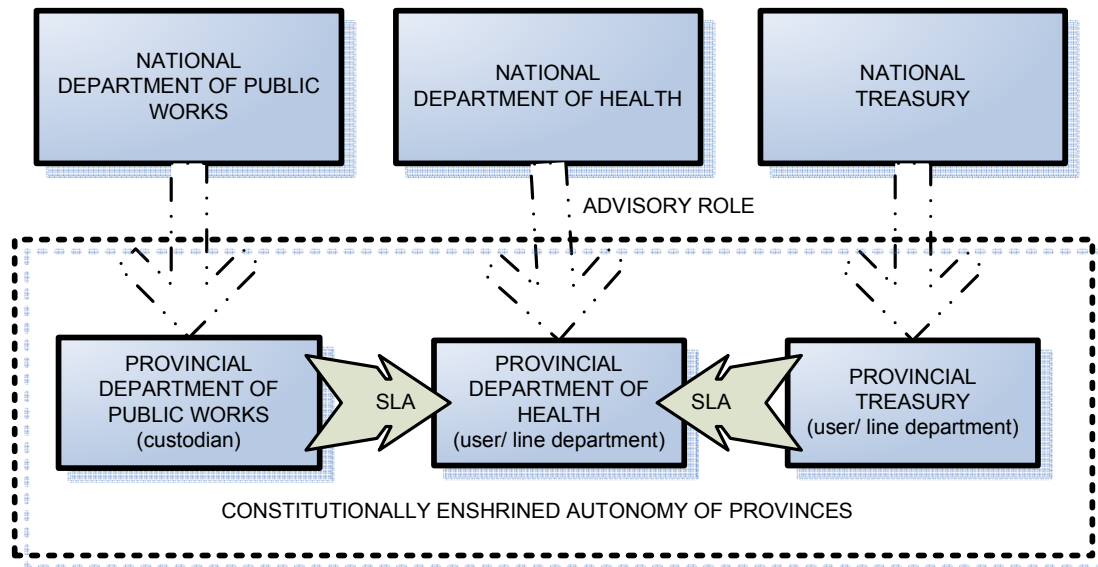


Figure 4

The situation has been resolved in various ways in different provinces, and remains critically unresolved in some. For example, in some provinces the department of works and health have forged a working relationship through adopting more formalised approach. In certain instances health expertise is being developed within the Department of Works and in others infrastructure skills and expertise is being introduced into the Department of Health.

The South African Council for the Architectural Profession (SACAP), recommended the “Identification of Work” which was intended to legislate the minimum SACAP registration requirements (related to qualification and experience) required to conduct work depending on the complexity of the task, and the sensitivity of the context. The implication for health-care facilities would have been that a minimum professional registration for design⁵ would have been compulsory. While this proposal is under review, in South Africa, the Reservation of Work document (carried over from the Architects’ Act 1970, No. 35 of 1970) prevails.

The South African approach to briefing is ad hoc, as described, but there is some inclination toward the finite (as opposed to dynamic) approach as evidenced in the document, *Annexure 7: Brief and Operational Narrative Framework 2009-2010*, the National Department of Health (RSA). This document provides an outline for the content of a brief framework, for application to the Hospital Revitalisation Programme, (which represents only part of the public sector infrastructure investment) which must be signed off by the executive. The document outlines the purpose of the brief:

- an introduction to the project (describing the site),
- historical background, project funding etc),
- background information detailing the services to be rendered ,
- legislation, regulations, policies and guidelines,

⁵ private doctors consulting rooms, may have been designed by professional architectural draughtspersons, medical consulting rooms and satellite clinics by professional architectural technologists, medical satellite community health centre professional senior architectural technologists, and frail care / hospice hospital / trauma unit by professional architects, sore low sensitivity sites.

- project governance, (including mechanisms for amending the brief), operational narrative⁶,
- schedule of requirements⁷,
- site parameters,
- building parameters,
- project implementation strategies (phase planning, procurement strategies), and
- financial implications (including land acquisition, bulk services, professional fees, construction cost, equipment, operational costs, maintenance cost).

In comparison to all other briefing processes studied this model is the most ambitious, onerous and far-reaching. The motivation behind this approach is laudable since it potentially facilitates value management, optimisation, efficiency, cost reduction, and a basis for learning. However, unless the process is supported by a commitment from brief writers, and the necessary skills and knowledge developed to underwrite the scheme; and unless the process is monitored and developed over a sustained period of time, it is likely to be dealt with by minimal compliance.

Life-cycle costing and analysis for South African buildings generally, and health-care facilities in particular is poorly researched and understood (Abbott *et al.*, 115). Construction and design technologies and methods are unlikely to be transformed through this process of analysis toward more sustainable, cost-effective solutions, nor better healing environments, unless the information described in the briefing documents is systematically evaluated, validated against actual building performance, life-cycle costs and that this information is used in a continuous feedback cycle (see **Figure 5**.)



Source: Jay Yocis, University of Cincinnati

Figure 5

⁶ Functional relationships between departments, staffing requirements, zoning etc.

⁷ Functional layout and schedule of accommodation and room data sheets

QUESTIONNAIRE

In order to gauge the feeling of a sample of those currently involved in planning, a questionnaire was prepared and distributed electronically to 32 persons identified by the National Department of Health⁸ as having being responsible for the preparation or receipt of briefing documents for proposed health-care buildings in the public sector in South Africa. The questionnaire included a referral question, and an additional three persons were identified, and approached. A 20% overall response rate was received. 42% of responses were received from a single province, and no responses were received from five of the nine provinces.

The purpose of the process was to provide an opportunity for those involved in the process to contribute formally their opinions, perceptions and experiences, as well as to do a rough survey of South African brief writers' skills profiles and backgrounds. The questionnaire provided an option to remain anonymous (if preferred), and contained a series of structured questions, and open-ended questions.

Respondents represented the departments of health, public works and consultants. The combined experience of respondents in the field of brief writing is 100 years, with an average of 14 years - ranging from one to 48 years. The range of core skills and formal training respondents found applicable to their daily work is richly diverse, as illustrated in **Table 2**.

Experience		
	facility planner	
	maintenance officer	
Formal training		
		1
degree	engineering	
degree	architectural technology	1
degree	architecture	4
certificate	investment appraisal and risk analyses	1
course	research method	1
degree	Town-planning	1
degree	landscaping	1
degree	nurse (professional)	1
pg dip	nurse (community health)	1
pg dip	project management	1
certificate	project management	1
pg dip	health technology management	1
certificate	health facility planning courses	4
Pg degree	Business administration	1
Soft skills		
	communication	
	report writing	

Table 2

⁸ This represents the most complete list known to the Department

The questionnaire asked briefers to rate the relative importance of a twenty identified objectives for a brief, first in terms of how they are perceived to be currently, and what they perceived they should have (See **Table 3**: A list of twenty things a brief might do). The consolidated results demonstrate a remarkable congruence between what is perceived to be applied in practice (is) and what is perceived to be of importance ideally (ought) with a small shortfall in practice (see **Figure 6**). The least important role of a brief was consistently identified as *aligning design with Works objectives*. Several respondents declined to rate the most important of the twenty objectives, on the grounds that all items listed are critical. For the remaining respondents, uncontroversially, the four most critical roles for a briefing document to play are: (a) *to define a scope of work*, (b) *align design with strategic planning objectives*, (c) *to ensure master planning* and (d) *to establish a mandate for the professional team to proceed with the design*.

defining scope of work
communicating functional aspects of building (water, energy use)
describing building performance requirements
ensuring a quality building
align design with strategic planning objectives
aligning design with DoH needs
aligning design with DoH objectives
aligning design with Works objectives
ensuring patients' needs are represented
ensuring patients' wishes are represented
ensuring health care workers' needs are represented
ensuring health care workers' wishes are represented
managing expectations of key stakeholders
marking out a budget
ensuring master planning
ensuring WHO standards are met
ensuring infection control standards are met
ensuring that occupational health and safety requirements are met
ensuring that buildings are compliant with all relevant legislation
establishing a mandate for the professional team to proceed with the design

Table 3: A list of twenty things a brief might do.

The most significant variances between what is perceived to be applied in practice (is) and what is perceived to be of importance ideally (ought) are: *describing building performance requirements*, and to a less extent *ensuring that patients' and healthcare workers' wishes and needs are represented*.

Other issues that were identified by respondents as having been missing from the list *twenty things a brief should* do were establishing a time frame for the project, providing detailed layout plans (at facilities, planning units and room scale), presenting a schedule of accommodation, promoting a healing environment, and articulating sustainability issues.

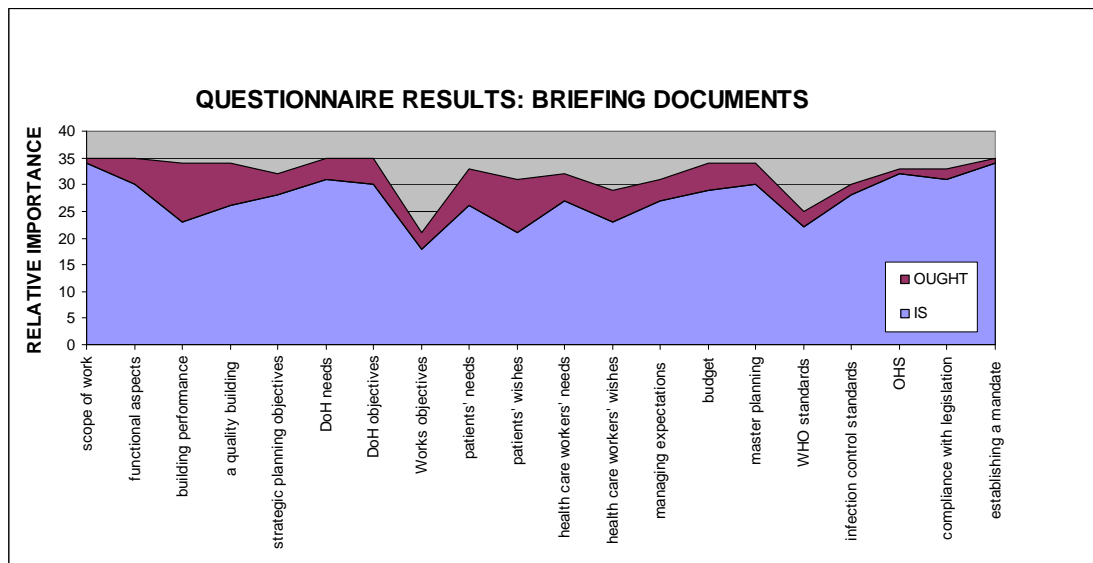


Figure 2

The single greatest frustration listed in responses related to lack of skills, knowledge and experience in respect of the specialised requirements of health-care facility design.

Asked the question: *would you agree that a formalised approach to preparing briefing documents may well streamline the process, and result in better buildings?* all respondents agreed. However, 42% qualified that this should comprise practical guidelines, checklists, milestones or room data sheets.

Respondents indicated that they drew upon a wide range of resources to inform their work including: precedent studies (other buildings, other plans, other briefing documents), regulations (the R158), visits to similar facilities, interviewing staff, guidelines (Australasian, CSIR), books, internet, norms, standards (Health Service: Package of Services). Peer review is extensively used (85%) to guide respondents work. The following were reported as being additional resources or support that would have been valued:

- More workshops and discussions (on-site and country-wide)
- Standard designs
- Updated norms
- Up-to-date standards and guidelines
- Updated technical equipment information
- Operations narrative

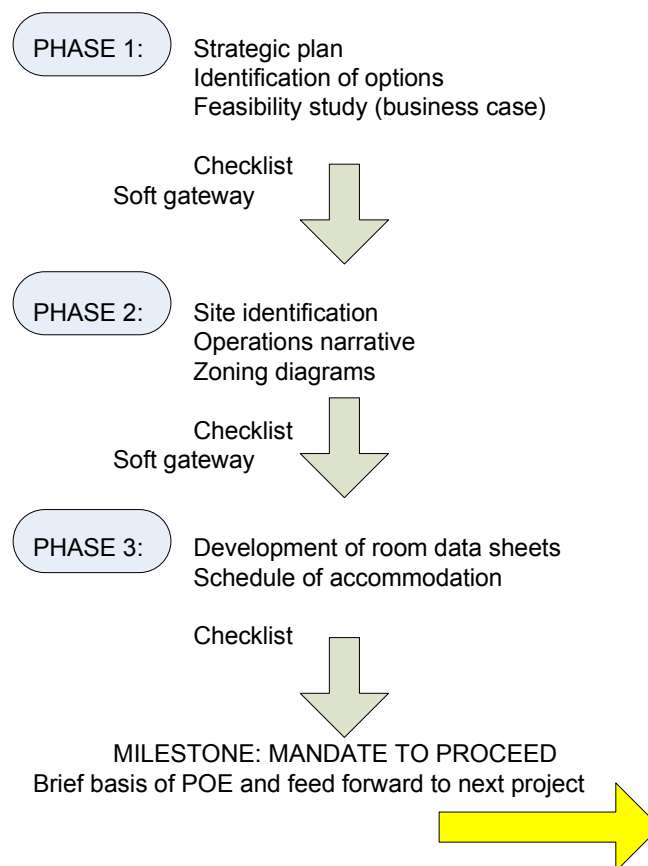
THOUGHTS ON “OUGHT”

An insistence on adhering to detailed early brief will inhibit dialogue which is considered beneficial to the process of brief development (Othman *et al.*, 251) Studies have indicated that “successful briefing is dependant on understanding the client’s strategic goals” (Yu, et al., 209)

Yu, *et al.* have noted that internationally there are significant differences in public and private sector briefing modus operandi (210). In private sector briefing tends toward finite modelling because private clients are sensitive to their emerging needs, more sensitive to return on investment and thus disinclined to countenance works and reworks in design. They argue that in public sector greater emphasis on accountability means that “right” solutions are sought, even at the expense of redesign. Comparable studies have not been conducted in South Africa.

CONCLUSION

It makes sense to conceive of the briefing process as a three phased model (as per NHS Advice model described above) which is progressively firmed up with “soft gateways” between them, but which is “frozen” after a particular point (say, before detailed design commences.) This strategy respects brief development as a process, rather than an event, whilst still requiring the necessary commitment in order to provide the professional team with a dependable mandate to proceed.



The briefing document should then be archived according to best practice (this is not always practiced in South Africa), and the systematically used for post occupancy evaluations (not to hold individuals accountable retrospectively) but in order to improve the process systematically by feeding forward learning to subsequent projects.

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