DESIGN METHODOLOGY
IN MANAGEMENT CONSULTING

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Enschede, October 2001
Klaasjan Visscher

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1

Introduction

> "[T]he present is a time of transition. […] Old fashioned methods of administration are beginning to show signs of wearing out, and of being no longer equal to the strain and intensity of modern industrial working. Very searching questions are consequently frequently asked as to the probable direction in which reorganization is required," (J. Slater Lewis, 1899, p.59).

> "Organizational design takes on new importance for the 21st century as organizations are confronted with new and rapidly changing challenges. New forms of organization and new ways of thinking about organization will be required. Traditional forms will need to evolve in novel ways," (EIASM workshop on organizational design, 1999).

The question of organizational design and redesign is an enduring one in management literature and practice. Ever changing times, the fickle flow of everyday affairs, and the constant stream of latest concepts incessantly confront people in organizations with outdated structures, problematic practices, and enticing new state-of-the-art systems. They are constantly urged to renew their organizational world, in a never-ending quest for more effective, more efficient, more competitive, or in any other sense better organizational designs. Designing and redesigning organizations was, is, and probably will remain part of the core activities of managers and management consultants (Simon, 1969; Schön, 1983; Robbins, 1983; Daft, 1992; Tsoukas, 1996), and a focal point of researchers who wish to contribute to managerial practice (Schön, 1987; Van Aken, 1994, 1996; Verschuren, 1997).

The question of organizational design concerns the content of the design as well as the process of designing. Questions concerning the content –

which form should an organizational design have – are tackled by design-oriented organization theory. Questions concerning the process – in which way should one design organizations – are tackled by design methodology. In management literature, design-oriented theory usually receives much more attention than design methodology. A typical place for methodology is in an "implementation" or "making it happen" section in one of the final chapters of a book that is full of ideas and models for novel organizational designs. The "how to" question is then answered succinctly by a phase-model and some recommendations for achieving commitment. However, design methodology deserves greater attention. Designing is more than the proper implementation of a given model of an organizational form. It is a creative, complex process (Schön, 1983; Akin, 1994), in which an organizational form is being wrought. Designing organizations is a situation-specific, multifaceted activity, which requires specific competencies (Yokoyama, 1992). These competencies are the focus of this study.

1.1 A dilemma for design methodologists

A common way to answer the "how to" question of design is to propose a phase-model. As Van de Poel, Rip, and Van Vught (1993) have shown for several fields of technical and social design, and Visscher-Voerman (1999) has demonstrated for educational design, phase-models are traditionally the core elements of design methodologies. The same goes for organizational design. In Dutch management literature, for instance, Van Strien's (1986) regulative cycle, a phase-model containing the steps of a problem-solving cycle, has a central place in the design-methodological discourse (see Van Aken, 1994; Paashuis & Verberk, 1996; Simons, 1996). In many fields, phase-models have attained a paradigmatic status, in the sense that they are regarded as methodological exemplars (Kuhn, 1962). The development of methodology then becomes, to a great extent, equivalent to the development of phase-models.

What is a phase-model and in what way is it supposed to answer the question of design methodology? Four relevant qualities can be discerned. Firstly, phase-models consist of activity-sequences. They are typically presented as block diagrams, with the activities in blocks and arrows indicating the sequence. Secondly, phase-models can be descriptive as

well as normative, but in methodology, they tend to prescribe what designers should do to make a good design, rather than describe what designers actually do[1]. Thirdly, phase-models are abstract and more or less generic, applicable to a category or a whole range of situations. And finally, phase-models are open to validation. This means that, through design-oriented research in the logical-positivistic tradition, the normative claim under the models' activity-sequences can be verified or falsified for different categories of situations.

Phase-model methodologies, consisting of validated, generic, and normative sequences of activities, are supposed to provide designers with guidance in their efforts to redesign organizations. But time and again, design researchers observe a wide gap between this kind of methodology and practice (Alexander, 1971;[2] Schön, 1983; Van de Poel et al., 1993; Coyne, 1995; Dorst, 1997). Schön (1987) expresses his concern with this gap through a metaphor: "there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confusing problems defy technical solution. The irony of the situation is that the problems of the high ground seem to be relatively unimportant to individuals or society at large, while in the swamp lie the problems of greatest human concern" (Schön, 1987, p.3). In terms of this metaphor, phase-model methodology is situated on the high ground, having little relevance for the "swampy" practice of designers.

Bucciarelli (1994), in his ethnographic study of engineering design, says of

[1] A model can have a representational function, visualizing an object or concept in a smaller or simpler way, as well as a normative function, indicating an exemplary course of action. The origin of the word model lies in the Latin 'modulus', the diminutive of 'modus' (measure), as used by Vitruvius in his book *De Architectura*. When this book was republished in Italy in the 15th century, the word 'modello' became familiar in architectural design discourse. There it received the double meaning it still has, as a representational (scale)-model of a building and as an ideal, exemplary model of how to build (Bertels & Nauta, 1969; Verschuuren, 1981). In principle, phase-models also have that double meaning as representation and prescription, but in design methodology, the prescriptive meaning is emphasized.

[2] Alexander, one of the first and most prominent design methodologist in architecture, later in his life criticized the usefulness of methodology for practice. In an often-cited interview he said: "If you call it 'It's a Good Idea to Do', I like it very much; if you call it a 'Method', I like it but I'm beginning to get turned off; if you call it 'Methodology', I just don't want to talk about it" (Alexander, 1971, in Cross, 1984, p. 314).

phase-models that "to anyone interested in process, these diagrams shed very little light on how design acts are actually carried out." (Bucciarelli, 1994, p.112). Phase-models can be seen as reductionist representations of the design process, trying to make rational what is uncertain and ambiguous. Designers may have these models, but they consider them so distant from their actual practice that they rarely use them for guidance. A basic assumption of phase-model methodologies is that they suppose that design processes can and should be carefully planned, and that methodologies should provide the rational basis for these plans, prescribing which activities designers should carry out in which sequence in order to be successful. According to Suchman (1987), however, designing is a situational, experimental, and *ad hoc* activity, in which plans have very limited relevance. "[P]lans are best viewed as weak resources for what is primarily *ad hoc* activity. It is only when we are pressed to account for the rationality of our actions, given the biases of European culture, that we invoke the guidance of a plan." (Suchman, 1987, p.ix). According to her, phase-models may serve as templates for the legitimization of the designer's actions, before or after the process, but hardly as guidelines during the design process itself.

If indeed this gap exists between phase-model methodologies and messy design practice, then what should design methodologists do? Should they stick to the development of phase-models, and educate designers more thoroughly in following these models? Or should they accept that organizational design escapes any codification in methodology and give up the idea of developing design methodology altogether? Neither route seems particularly appealing. The first route is based on the questionable assumption that practitioners do not seek the guidance of phase-models because of an imperfection of practice rather than because of an imperfection of design methodology. The second route is defeatist. One may indulge in the complexity of design practices, demonstrate time and again that phase-models are just reductionist descriptions, and warn designers not to try to follow phase-models strictly, but this is of limited help for designers who want to know how to do better (cf. Schmidt, 1999).

The way out of this dilemma that is followed in this study is to address the methodological question from a starting-point in the "swampy" practices. Practice may be messy, but practitioners are not just randomly

muddling through. Experienced designers have developed competencies to handle those swampy, messy, unique, uncertain, complex, and multifaceted design situations in an effective and productive manner. Over the years, they have acquired design strategies that work, methodologies-in-use rather than official methodologies-on-paper. By reconstructing these productive design strategies, a methodology can be constructed that bridges the gap with practice. Phase-models may have a place in such a practice-based methodology, but whether this is the case, and in which way, should be treated as an empirical question, not as an *a priori* assumption.

A practice-based methodology is created by going back-and-forth between, on the one hand, what competent practitioners do to create a design, and on the other hand, a coherent set of rules that accommodates these practices as well as possible. In this way, a methodology-on-paper is created that is in alignment with designers' methodologies-in-use. In terms of Thagard (1988), this balance between methodology and actual practices can be called a narrow reflective equilibrium. To construct robust methodology, Thagard goes a step further, to a so-called wide reflective equilibrium[3]. This is a state in which the narrow equilibrium is supported by arguments concerning the productivity of the rules, the extent to which they are accepted among practitioners, and their accommodation in a background theory. In this way, the normative claim of the constructed methodology is strengthened. The function of the background theory is to have a basis for assessing the productivity of methodological rules with arguments that are not internal to the practices.

1.2 Purpose, central question, and design of the study

In the research program "Towards a design methodology for the social sciences", of which this study is a part, the route of the wide reflective equilibrium is taken to create practice-based design methodology in the form of arguably productive design strategies (Rip et al., 1993; Zwanenburg, 1993; Visscher-Voerman et al., 1995; Van Heffen et al., 1999). Reconstruction studies have been carried out in several social design practices, most intensively in educational design, organizational

[3] Thagard (1988) rightfully deserves the credits for the wide reflective equilibrium, but the underlying idea to start with methodology-in-practice has a longer history (Kaplan, 1964).

design, and the design of public information campaigns, in order to develop building blocks of a design methodology for the social sciences. Organizational design is the topic of this dissertation.

Organizational designing is practiced predominantly within the domains of management and management consulting. The focus in this study is on the domain of management consulting. Covering both domains would be too much for one dissertation, and management consulting seems a more promising domain to start with than management. Management consultants work on designs in many different organizations and they experience the success and failure of their strategies in different contexts. They have more opportunities than managers to develop productive strategies for diverse design situations. Managers normally acquire experience in fewer organizations, and their jobs comprise more non-design tasks, in particular the day-to-day administration of the organization as it is. In addition, consultants are more used to articulating their strategies in their work, while managers can and do keep them more implicit and intuitive (Karsten & Van Veen, 1998). Consultants' articulations of design strategies can be used as stepping-stones towards a practice-based design methodology, while with managers, one would have to start the reconstruction from scratch.

The purpose of this study is to reconstruct organizational design strategies, as they are employed by competent management consultants, and to analyze their productivity. The central research question is: *Which arguably productive strategies do competent management consultants employ to create organizational designs?*

The central research question will be answered in four main steps. The first step is the construction of a vocabulary to conceptualize organizational design practices and strategies, and a background theory to understand and position these strategies. This is the conceptual basis for the study. The second step is the portrayal and characterization of the domain – management consulting – which is essential for the understanding of the practices and strategies. The comparison of the results of this study with the results of other reconstruction studies in the same research program, which is an ambition of the overall research program, would not be possible without knowledge of the peculiarities of the domain. The third step is the empirical exploration of design

practices. For this exploration, a combination of quantitative and qualitative techniques is employed, in particular a survey among Dutch management consultants and a series of in-depth interviews with twenty-four carefully selected, highly competent management consultants. The survey has two purposes. First, it tests and elaborates the background diagnosis of the study, the presumed gap between design practices and phase-model methodologies, if only because the background diagnosis is primarily based on studies in domains other than management consulting. Second, it identifies highly competent consultants to be interviewed. The purpose of the interviews is to reconstruct design practices in-depth, investigating what management consultants do to make organizational designs, how they do it, and especially for which reasons. The fourth and final step of this study is the construction of arguably productive design strategies, which are in a wide reflective equilibrium with the described practices.

1.3 Structure of the dissertation

The dissertation is structured as follows. Chapter 2, *Theory of organizational design*, starts with a history of organizational design, showing how the classic approach towards organizational designing in management literature recently changed fundamentally. A new generation of design approaches has arisen, which involves a descent from Schön's (1987) high ground into the swampy lowlands of design practice. Subsequently, a background theory of organizational design practice is developed consistent with the new generation of approaches, and to create a vocabulary for studying practices and constructing methodology. The chapter concludes with a conceptual framework for the empirical part of this study. Chapter 3, *Research design*, sets out the quantitative and qualitative methods that are used for the empirical part of this study. Chapter 4, *Management consulting*, characterizes the domain of management consulting. It draws on literature as well as on the survey conducted among management consultants. The survey report is divided into two parts, one part portraying the domain, the other part focusing on consulting practices and on the presumed gap between practice and phase-model methodologies. Chapter 5, *Organizational design practices in management consulting*, reports on the in-depth interviews with consultants. It describes design practices in their complexity and variety, using the vocabulary developed in chapter 2. Chapter 6, *Strategies for organizational*

design, constructs coherent sets of methodological rules, which reflect the design practices described in chapter 5 using the background theory from chapter 2. Central in this chapter are two typologies, one with design strategies, the other with method-making strategies, which concern the making of methodological building blocks to support the designing. Chapter 7, *Conclusions and discussion*, brings the results of the several parts of the study together and draws overall conclusions about organizational designing and design methodology. The dissertation ends with a discussion of the implications of this study for practitioners, researchers, and the development of an overall design methodology for the social sciences.

2

Theory of organizational design

This chapter has two purposes. The first purpose is to position this study in the body of literature on organizational design. The second purpose is to construct a theoretical framework, consisting of a background theory and a vocabulary for studying design practices empirically and for creating practice-based design methodology. The body of literature will be discussed in section 2.1. The theoretical framework will be elaborated in section 2.2. The chapter concludes by setting out the main elements of the framework that will be used to structure the empirical study in chapter 5.

2.1 A history of organizational design

Organizational design is a twentieth-century term, but when applying it in hindsight, it has a long-standing history in literature. According to Exodus 18:17-27, Jethro, Moses' father-in-law and one of the first management consultants, made an organizational design for the Hebrews in the desert, dividing them into groups of ten, fifty, one hundred, and one thousand, and defining the jobs of their managers (cf. Pindur et al., 1995). This would have been around 1300 BC. Benedict of Nursia wrote in the fifth century AD on the design of cloister organizations, specifying a division of labor between the abbot, the deans, the novice master, the guest master, and others, and spelling out their tasks, responsibilities, and authority (Kennedy, 1999). And since the emergence of academic management literature, at the end of the nineteenth century, organizational design has always been one of the focal issues, which can be seen in the large stream of monographs, articles, and textbooks on organizational design (e.g. Taylor, 1911; Simon, 1945; Thompson, 1966;

Galbraith, 1974; Mintzberg, 1979; Nystrom & Starbuck, 1981; Daft, 1992).

Until about 1980, the history of organizational design can be regarded as incremental, with authors adding bit by bit to earlier insights. But during the 1980s and 1990s, the conceptualization of organizational design changed considerably. In these decades, several authors tried to renew organizational design by combining it with principles from organizational development, a current in management literature that was previously considered antithetical to organizational design. To account for these recent changes, the history of organizational design will be told with a dialectical rather than a linear story-line. First, the classic approach towards organizational design will be dealt with, then the criticism on classic design and the developmental approaches that were created as an alternative will be elaborated, and subsequently the recent synthesis of the two in the new generation of design approaches will be discussed. For the sake of argument, the classic and developmental approaches are described as monolithic, blackboxing the differences among different proponents within each approach. This may oversimplify the history of organizational design, but the point of this chapter is not to do full justice to history, but to make the main developments visible and to position the present study in the organizational design literature.

2.1.1 A portrait of classic design

In James March's *Handbook of Organizations*, a voluminous work from the mid 1960s that presumes to summarize the state of knowledge on human organizations, Haberstroh states "The design of an organization refers, *of course*, to its structural characteristics," (Haberstroh, 1965, p.1171, italics added). In the classic design approach, organizational designing is primarily aimed at constructing a blueprint for the formal structures of organizations, i.e. the division of labor into functions, the allocation of tasks, responsibilities, and authority of these functions, and the creation of hierarchical and lateral mechanisms to coordinate and integrate them (Mintzberg, 1979; Child, 1984). The icon of classic organizational design is the organogram, a diagram with functions grouped in boxes and lines in-between to indicate hierarchical and lateral relations (cf. Daft, 1992). But a formal structure comprises more than organograms can picture. Job descriptions, workflow-diagrams, or for instance quality handbooks also

represent parts of it.

In the classic design approach, the purpose of designing a formal structure is to control organizational behavior. Mintzberg (1979) compares designing an organization with turning the knobs of a control panel, adjusting and fine-tuning the division and coordination of labor to achieve stable and productive behavioral patterns. In the words of Foucault (1989), organizational designs are used to normalize and discipline. Designs state the norms for correct behavior and the sanctions on abnormalities. More specifically, job descriptions and work procedures tell employees what they should do, the hierarchical structure tells them to whom they should listen, and lateral linkages tell them with whom they should cooperate, and in what ways. Designers try to minimize unproductive deviances in individual behavior, since they threaten the rationality and the effectiveness of the whole, just as a single malfunctioning gear may cause a motor to grind to a standstill[4]. For this reason, organizations are designed in as much detail as possible (Newman, 1973), and these designs are implemented and maintained meticulously, with as few alterations or compromises as possible. Illustrative is a remark in a letter by Frederick Taylor, the father of scientific management, to one of his clients. He wrote with emphasis that the success of his designs rested on the rigid establishment of inflexible procedures, and their exact execution, "whether they are right or wrong," (Kanigel, 1997, p.377). His designs were not to be doubted or altered – especially not by the people whose behavior it attempted to regulate.

In Mintzberg's (1979) metaphor, a designer is the person who turns the knobs of the control panel. In the classic approach, this is the (top)manager of an organization. Parts or aspects of the design may be delegated to management consultants or lower-level employees, but ultimately, the organizational design is considered the task and responsibility of general management (Khandwalla, 1977). Ideally, manager-designers would be all-powerful and all-knowing, able and capable of molding the organization to an optimal design. They would

[4] In classic design, metaphors from engineering are often used to conceptualize organizational design. Newman (1973) starts his book on organizational design with the similarities of an organization and an internal combustion engine. Triandis (1966) explains designing organizations by means of the metaphor of designing bridges.

know when to turn which knob, and what effects different positions of the knobs would have on their employees' behavior. In practice, of course, this ideal cannot be attained. Managers are not all-powerful. Designees mostly have the option to cooperate with or to resist the design, and may possibly force the manager to compromise. Nor are managers all-knowing. Even when they consult others, they will have to base their design on incomplete information, and aim for satisficing instead of optimal designs (Simon, 1945, 1969). But in the classic design approach, these comments are practicalities and footnotes to the design process. The basic assumption remains that management designs the organization, as well as it can, despite all practical problems and setbacks. In the words of Khandwalla (1977), "the principal agency through which organizations are shaped, regardless of how many or how diffuse the forces shaping them, is management. For it is management […] that reconciles and manipulates the various pressures on the organization, and through its decisions and directives, gives the organization's structures and processes distinctive form," (Khandwalla, 1977, p.261).

Given its focus on upper management as primary designers, the classic design approach is agency-oriented. It presumes that organizations are shaped predominantly by managers, not by external forces, socio-economic macro-structures, or the collective actions of large groups of people within the organization. In terms of Van de Ven and Poole (1995), the classic approach is based on a teleological theory of organizational change, in which the intentional action of individuals is considered the primary motor of change. Organizations are considered to be shaped primarily by agents, not by variation-selection-retention mechanisms, as in evolutionary change theories, or by the growth to maturity of the business, as in life-cycle theories (Van de Ven & Joyce, 1981; Van de Ven & Poole, 1995).

In the classic design approach, the process of designing is seen as rational problem-solving. This view is championed by Herbert Simon (1969) in *The Sciences of the Artificial*. He conceptualizes the design process as a search process, starting with a problem and ending when a design has been found that solves the problem optimally, or at least satisficingly. Typical stages in this problem-solving process are the identification of the problem, the analysis of the problem, the design of a solution, the implementation of a solution, and finally the evaluation how the solution

solved the problem (cf. Van Strien, 1986; Lipshitz & Bar Ilan, 1996). Since design situations can be very complex, with multifaceted problems and large solution spaces, Simon (1969) compares the problem-solving process as a search through a maze, with many dead ends and difficulties in the orientation. To find one's way through this maze efficiently and effectively, he advises to reduce the complexity of the situation in the first stages of the design process. His main heuristic for this reduction is decomposition. Designers should divide a complex problem into sub-problems, until they reach a level at which the problems are manageable. Thus, a hierarchy of problems emerges. The process of analysis involves a descent through this hierarchy, exploring the causes of problems and sub-problems. The process of designing solutions involves a bottom-up movement. It starts on the lowest level by designing solutions for sub-problems, and proceeds by combining these solutions, until an overall solution has been created. This process of decomposition and recomposition matches particularly well with the design of formal structures, which is the focal point of the classic design approach, since a formal structure concerns the decomposition and recomposition of labor. According to Galbraith (1974), decomposition and recomposition form the core of organizational design. "After the task has been divided into subtasks, the problem is to integrate the subtasks around the completion of the global task. This is the problem of organization design," (Galbraith, 1974, p.28).

The design of solutions has a diverging part and a converging part, which are separated in time. Designers first generate as many alternatives as possible, and only then reduce them and choose the best one. If they converge too quickly, they run the risk of overlooking less-obvious, but more creative and possibly better solutions (Van den Kroonenberg, 1984). Diverging is a creative process, for which a whole range of techniques exists, like brainstorming, brainwriting, lateral thinking, and the use of morphological boxes (e.g. De Bono, 1970; VanGundy, 1987). Converging is a rational process, for which rational choice techniques like a multi-criteria analysis can be used (e.g. Kesselring, 1954). The best alternative is the one that scores the highest on a set of functional criteria. These criteria are derived from the problem that is to be solved, and possibly from a variety of financial, structural, or other constraints. Once these criteria have been established, choosing the best design is only a matter of calculation (Simon, 1969).

Designing a solution in the classic design approach is strictly separated from the implementation of the solution. Logically and in time, design precedes implementation. The implementation does not start before the best possible design has been chosen. The approach applies the proverbial 'look before you leap' (cf. Van Aken, 1996). During implementation, there may be compromises on aspects of the design, but the better the design, the better will be the end-result after implementation. When designing, designers should not bother too much about potential implementation problems, because that would thwart the design process and could lead to sub-optimal designs (Jägers & Jansen, 1991).

Simon's (1969) intention, broadly followed by others, was to develop designing into a science[5]. In the classic approach, organizational design is regarded as scientific in so far as it is based on a body of scientific knowledge about designs and design processes. This body is conceived of in a logical-positivistic sense, as a collection of related 'justified true beliefs' about organizational designs and the activity-sequences one should carry out to create them. Logical-positivistic design knowledge is typically stated in a law-like form. Triandis (1966, p. 72), for example, states the following laws of organizational design:

the taller the organizational structure:

- the closer the supervision, and
- the greater the pressure for production.

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other things being equal, the greater the pressure for production:

- the greater the quantity of production, and
- the lower the job satisfaction.

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These propositions have been, or can be, verified or falsified through empirical research. And if they are found true, designers can use them to build a causal chain of 'if…then' statements. Applying Triandis' (1966)

[5] According to Simon (1969), the design sciences — or the sciences of the artificial — are discriminated from the natural sciences by their imperative logic. This means that 'if...then' propositions are coupled to the designers' norms and values about good designs and designing. Natural sciences describe, explain and predict the world, the sciences of the artificial insert norms and values to shape the world.

laws, designers could argue that, *if* they design a tall structure, *then* this will increase the pressure on production, and *then*, ceteris paribus, this will lower the job satisfaction. So, *if* these designers do not want to lower job satisfaction, *then* they should not design a tall structure, or they should change something in the 'ceteris paribus' to compensate for the negative effect.

Law-like design knowledge is applied in concrete design situations through subsumption (Tsoukas, 1994; Tsoukas & Cummings, 1997). This means that particular cases are put under the general categories in which the law is stated. To be able to apply one of Mintzberg's design laws, for instance, which says that "in a dynamic environment, the structure of an organization should be organic," (Mintzberg, 1979, p.270), a particular environment should be subsumed under the category 'dynamic' or 'non-dynamic', and a particular structure under the category 'organic' or 'non-organic'. Toulmin (1976) calls this way of handling knowledge technological Platonism, since specific organizational designs are considered instances of more abstract and pure designs, and designing in a specific context is considered the instance of a generic design method. This technological Platonism does not imply that the classic approach regards the creation of designs as mere deduction from scientific knowledge. Classic designing has a creative element, in particular in the search for alternative solutions. In these creative activities, knowledge is not applied through deduction, but through abduction (Peirce, 1923; March, 1976). Abduction is the inference to a novel design, the backwards use of the 'if…then' rule. It starts with a 'what…if' proposition, a speculation about what might be a good design (and this speculation might be based on Mintzberg's or Triandis' laws), and proceeds from there with 'if…then' reasoning: if this is a good design, then one can expect certain desirable consequences for the organization. These expectations can be checked by argumentation, simulation, or experimentation, and if they turn out to be incorrect, this is a reason to modify the design and start with 'if…then' reasoning again.

2.1.2 Against classic design

The classic approach has been criticized in management literature on different aspects and on different grounds. The five main points of criticism will be elaborated. A first point is that the scope of the approach

is too limited. The success of an organization depends not only on the quality of its formal structure, but also – and maybe more importantly – on the informal structure, or organization culture (Peters & Waterman, 1982; Schein, 1985; Sanders & Neuijen, 1987). These cultural aspects may be influenced by the design of a formal structure (Claus, 1991), but can also be shaped by other interventions, for instance by encouraging people in face-to-face contact, propagating appealing visions, or cultivating strong organizational values. An approach that solely focuses on the formal aspects of the organization and misses the essential informal aspects is therefore considered ineffective.

A second critical comment is that the classic approach is focused too heavily on (upper)-management, and separates designers and designees too strictly. Designs are meant to control the behavior of the employees in order to make them do what management thinks to be productive. In the classic approach, management designs and employees are being designed. Employees are not seen as co-designers, and their margins to steer their own behavior are made as small as possible. Employees may, of course, choose to resist during the implementation of the design, but in a hierarchical organization the management is most likely to get the best of it (Lammers, 1983). Critics of the classic design approach have argued that employees should be given more influence on the designs that concern them personally (e.g. Trist & Bamforth, 1951; Van Zuthem, 1986; Mumford, 1995; Emery, 1993). One argument is that freedom and autonomy are important values in a democratic society, which should also be applied within organizations. Another argument is that employees often have knowledge and skills that are useful for making a good design. Organizational knowledge and skills are distributed among the employees of the organization (Hutchins, 1995; Tsoukas, 1994), so it is unwise to utilize only the knowledge and skills of the management in the design process (Zell, 1997).

A third, related point of criticism is that the classic design approach separates the processes of design and implementation too strictly. Designers are not encouraged to anticipate considerations of implementation during the design process, which may lead to large implementation problems, or even to complete failure of the design process. Mintzberg (1990, 1994) makes this point for strategy design. “Often, when strategy fails, those at the top of the hierarchy blame it on

implementation lower down: 'If only you dumbbells appreciated the brilliance of the strategy we formulated…'. Well, those dumbbells down below might well respond: 'If you're so smart, why didn't you take into account the fact that we are dumbbells?' In other words, every failure of implementation is, by definition, also a failure of formulation," (Mintzberg, 1994, p.25).

A fourth point of criticism is that, in the classic approach, the design process is too one-sidedly problem-driven, and ignores solution-driven design processes. The argument of the classic design approach against solution-driven designing, viz. that it focuses too quickly on one solution without exploring possibly better alternatives, can be countered by several arguments against problem-driven designing. Design problems often have a 'wicked' nature (Rittel, 1972), which means that they are unique, complex, and ambiguous. Wicked problems cannot be defined unequivocally, at least not at the beginning of a design process, which makes them impervious to decomposition, thus stalling the design process. Furthermore, working from problems towards solutions becomes problematic when problems change before their intended solution has been implemented (Nystrom & Starbuck, 1981), which may result from changing circumstances or a growing insight in the problem situation. And when a solution has been implemented, it is tricky to assess it as a solution to the problem, because the causality between an intended solution and the disappearance of a problem is often ambiguous, especially with wicked problems. For these reasons, design processes are often solution-driven (March, 1981; Sköldberg, 1994). Solution-driven design processes are not initiated to solve a particular problem, but to implement a particular solution, such as 'continuous improvement', 'total quality control' or 'a learning organization'. Through implementing these designs, a whole series of problems may be solved, but which problem will be solved can only be said afterwards.

A fifth critical comment on the classic design approach is that by conceptualizing design as a rational problem-solving process, the role of non-logical processes (Barnard, 1938), tacit knowledge (Polanyi, 1962), or intuition (Agor, 1984) is ignored. Designers may make intuitive shortcuts in the design process. As an example, consider an experienced efficiency consultant who only needs a photograph of a production hall to make an instant diagnosis of the main inefficiencies, without conducting a

thorough analysis, and without being able to explain how he came to his diagnosis[6]. According to Simon (1989) this intuition is non-rational, but not irrational, because experienced designers have stored thousands of patterns in their memory, and their intuition is based on the instant recognition of a pattern in a certain situation. By insisting on rational analysis and design, the classic approach fails to appreciate the effective intuitive actions of highly competent practitioners. In addition, the classic design approach ignores the role of socio-political processes. Design processes rarely take place in a political vacuum. Political wrangling often influences the design process and its outcomes, to the extent that the resulting design totally reflects the interests of the most powerful people (Pfeffer, 1978). In politicized situations, designers are not free to explore the entire problem space, as the spaces that are incompatible with the interests of the dominant coalition are shut off. In this sense, the classic design approach is somewhat naïve, and this naïvete hampers its effectiveness.

To counter the classic design approach, a variety of alternative approaches has been developed in management literature. These approaches have received labels like 'organization development' approach (French, Bell & Zawacki, 1989), 'emergent change' approach (Burnes, 1996), the 'participative design approach' (Rehm, 1994), or the ironical 'truth, trust, love and collaboration' approach (Pettigrew, 1985; Buchanan & Boddy, 1992). In these approaches, organizational designs are not created by individual (top)managers who, through rational, science-based problem-solving, design and implement new formal structures to control the productivity of their employees. On the contrary, organizations are created in collective processes of the employees of the organization. The object of development may include the organizational structure, but it focuses more importantly on the organizational culture or informal structure. The role of management is to coach, stimulate, motivate, and facilitate employees in solving their own problems (Miles & Schmuk, 1989). In addition, management propagates a vision of the future, a 'solution' in general and appealing terms, as a general guideline for the developmental process (Claus, 1991). Social processes such as collaboration, communication, negotiation, and self-organization are emphasized over rational problem-solving processes, and if problem-

[6] This example was given by a management consultant who was interviewed for this study.

solving occurs, it is locally, integrated in the overall process of learning and negotiating. The knowledge used is mostly local and practical, not stored in 'the books', but in the heads, hearts, and hands of employees, learned by doing and reflecting on achieved successes and failures in the developmental process. In short, developmental approaches form the antithesis of classical design.

2.1.3 A new generation of design approaches

Proponents of the classic design approach and of the developmental approach can oppose each other vehemently, on pragmatic as well as on ideological grounds. Designers and developers formed different camps in the community of academics and practitioners, institutionalized in different conferences, academic chairs and consultancy firms (Ganzevoort, 1985). Table 2.1 summarizes the main differences, as they have been discussed in the above sections.

	Classic design approach	***Developmental approach***
Design focus	Formal structure	Informal structure
Design process	Rational problem-solving	Collective learning process
Designers	Management	Whole organization
Designees' role	Passive	Active
Design knowledge	General, science-based knowledge	Local, experience-based knowledge
Design/implementation	Separated	Integrated

Table 2.1: Main differences between the classic design approach and the developmental approach.

Over the last two decades, there have been attempts to bridge the gap between classic design and developmental approaches. Burnes (1996), for instance, has elaborated a contingency theory of organizational change, in which design and development are accommodated as complementary ways to change organizations. He says that the classic design approach is the most effective in stable environments, while developmental approaches are more suitable for turbulent environments. Others have attempted to synthesize design and development in a new generation of design approaches, which combine the best aspects of both. These new generation approaches received labels such as 'developmental design[7]' (Heuzen & De Savornin Lohman, 1991) or were just presented as more sensible ways to design (Yokoyama, 1992). Consider the following approaches as examples of this new generation. Ganzevoort (1985)

[7] In Dutch, the authors use the term 'ontwikkelend ontwerpen'.

proposes an approach in which management anchors certain aspects of an organization by design, such as the general vision, the division of labor in the design process, the minimal critical specifications of the design, and the available room for experimentation. Constrained and enabled by these designs, there is room for the designees to shape their organization through learning and experimentation. Mastenbroek (1997), in another example of synthesis, searches for a balance between the 'steering' of the classic design approach and the 'self-organization' of developmental approaches. Strategy, targets, and hierarchical structure are created by design, and within the organizational units, improvement initiatives and experiments are facilitated and encouraged. Yokoyama (1992) advises managers to leave the design of their organization deliberately incomplete. They should design the interfaces with customers, suppliers, government and financiers, in order to regulate the translation of wishes of stakeholders to internal requirements. Within these boundaries they should leave further specification to their employees. "Let life fill the spaces," (Yokoyama, 1992, p.122).

The new generation of design approaches strikes out on a middle road between classic design and development, combining, mixing, or balancing elements from each approach and synthesizing the dichotomies described in table 2.1. Designing in the new generation differs fundamentally from classic designing in several respects. Firstly, the meaning of 'designing' changes. In the new generation, the emphasis is less on the contriving of plans or blueprints and their subsequent implementation, and more on the integral process of bringing a new organization into being[8]. Blueprints can be made for aspects of the design, but they may also be made afterwards to picture the results of the design processes, or be left out entirely. In new generation designing, what was an essential characteristic

[8] *The New Webster's Dictionary of the English Language* (1995) gives eight definitions of design as a noun and five definitions of design as a verb. *The Oxford English Dictionary* (1989) gives nine and sixteen definitions, respectively. The majority of these definitions matches the conceptualization of design with the classic design approach. As a noun, it is defined, for instance, as 'a plan or scheme, conceived in the mind and intended for subsequent execution', or as 'the combination of parts in a whole'. And as a verb, it is defined as 'to form a plan or scheme'. But some definitions reflect the broader meaning of designing as it is conceptualized in the new generation design approach. A design can be defined as, for instance, 'the instruction for making something, which leave the details to be worked out', and designing as 'to invent and bring into being' (cf. Visscher & Fisscher, 1999).

of classic designing has become a situational option. Secondly, new generation designing distances itself from the classic connotation of control. Classic designing is ideally a controlled process, and its purpose is the control of people's behavior. In new generation designing, there is room for the uncertain and the unexpected, and the purposes of designing are broader and more diverse than in the classic approach. "Designers hope to improve organizations" as Nystrom & Starbuck (1981) say, "to make organizations more efficient, more humane, more rational, more fun, more useful to societies, more profitable for owners, more satisfying to members, more submissive to top managers, more democratic, more stable, more flexible, or whatever […]," (Nystrom & Starbuck, 1981, p. xiii). Thirdly, the rules of new generation designing are more complicated than in classic designing. In the examples given above, the new generation seems rather straightforward, since the combinations of classic design and development are well-defined, but this conceals the increased complexity and variety. In the classic design approach, 'how to' questions had clear-cut answers. In new generation design approaches, the answer always starts with 'it depends', since the middle road between classic design and development offers a wide range of possible mixes. Consider, for instance, the question 'who should design?'. Roughly, the classic approach says that management should design, while the developmental approach recommends that as many people as possible be involved. The new generation approach advises a middle road between management alone and everyone in the organization, substituting the question 'who should design?' for 'who is to be involved in which stage of the process, to do what for which part or aspect of the design?'. This question elicits subtle, situational answers, whereas in the classic approach the answer is simple, or the question would not have been asked at all.

The new generation of design approaches brings more variety, complexity, and situatedness into the theory of organizational designing. In terms of Schön's metaphor, it is the beginning of a descent from the pure and rigorous high ground into the swampy lowlands where, according to Schön (1987) and other students of practice (e.g. Suchman, 1987; Bucciarelli, 1994), practitioners are said to live and work. The new generation comes closer to what organizational designers actually do and appears to be based on practice. The originators of the synthesizing design approaches described above are all experienced practitioners. The middle road of new generation designing suggests a practice-based design

methodology. In other words, the present study of constructing a practice-based design methodology is a way to further develop the new generation of design approaches.

2.2 A theory of organizational design practice

Having positioned the topic of this study in organizational design literature, the second purpose of this chapter is to develop a theoretical framework for the empirical study of organizational design practices and the construction of practice-based methodology. This will be done in three steps. First, in section 2.2.1, a foundation will be laid in a so-called Borodino theory, which conceptualizes the chaos, messiness, and 'swampiness' of practice, and explicates how order is created from, and under the condition of, this chaos. It articulates a background theory that forms the basis under the new generation of design approaches, of which messiness is a core characteristic, and also explains how the classic design approach, in which the messiness of practice does not play a role, was possible. Second, the focus shifts from the chaos of practice and the construction of order, to the rules of practice and order itself. For the endpoint of this study lies not in showing the complexity of the world, but in the rules of practice that are used to create designs within that complex world. Section 2.2.2 adds to the theoretical foundation of the study by elaborating the concepts of practice, the rules of practice, and practice-based methodology, Finally, in section 2.2.3, a vocabulary will be developed to reconstruct organizational design practices in such a way that the creation of practice-based design methodology becomes possible.

2.2.1 A Borodino theory

Practices are messy, complex, and ambiguous. In order to elaborate this point more generally, consider the Battle of Borodino, as described by Tolstoy in *War and Peace* (Tolstoy, 1982; cf. Harré, 1975; Latour, 1988). On 26 August 1812, a battle was fought between Napoleon's troops and the Russian army near the Russian village of Borodino. On the battlefield is an incomprehensible tangle of action. Soldiers act in response to the concrete events that happen to them. Neither the causes, nor the effects of these events are known to them. They cannot see the contours of the battlefield, they do not know the strategies of their generals and they have no idea whether they are winning or losing the battle. In the course of the

battle it becomes clear that the actions of some small groups of soldiers are decisive, while big charges are without any clear result. The commanders, Napoleon and the Russian field marshal Kutuzow, have no overview over the battlefield and they are constantly troubled by contradictory messages and outdated plans of their general staffs. The messengers they send out with orders for their men rarely arrive at the right spot, and if they do, their message is misinterpreted or ignored. Tolstoy describes the battle as a muddled ball of fighting people, which neither commander can influence. The battle evolves unstructured, unpredictable and uncontrollable, and the influence of individuals with strategic and tactical plans is small[9].

Social processes, on battlefields as well as in organizations, are chaotic. Outcomes are emergent, and not the direct result of the vision, plans, and implementation efforts of a great general, manager, or designer. A stream of events is without an *a priori* structure. A structure is only created, before, during or after the action, when people tell stories about what will happen, happens, or has happened (Harré, 1975; MacIntyre, 1980; Widdershoven, 1993; Boje, 1995; Czarniawska-Joerges, 1995; Cilliers, 1998). In a story, an unstructured stream of events receives a beginning and an end. Certain persons are singled out as main characters, separate actions are made visible, and actions receive meaning in light of a plot. Causes are attributed to circumstances and people with intentions. A story tells whether something happens, what happens, who makes a difference and why. From the muddled ball of events and actions, storytellers pull threads and weave them into a meaningful whole.

"Even though stories are the inevitable results of action, it is not the actor, but the storyteller, who perceives and 'makes' the story," (Arendt, 1958, p.192). Stories are the accomplishment of storytellers and are not determined by the events. People do not get a role in a story because their actions have an objectively determinable impact on important events, but because a storyteller attributes agency to them (Latour, 1988). Storytellers

[9] The Duke of Wellington, Napoleon's adversary at Waterloo, also emphasized the chaotic character of battles. "The history of a battle", he said, "is not unlike the history of a ball! Some individuals may recollect all the little events of which the great result is the battle lost or won; but no individual can recollect the order in which, or the exact moment at which, they occurred, which makes all the difference as to their value or importance," (Keegan, 1976, p.117).

pick certain actors from the stream of events and make them into agents[10]. And they can do this in different, possibly incommensurable ways, even when it concerns the same stream of events[11]. He who is a 'hero' in one story might be a 'villain' in another, and the principal designer in one story might be insignificant in another (cf. Linstead & Grafton-Small, 1990). Well-known is the psychological and rhetorical defense mechanism, that when things go well, people are inclined to think and tell that it was they who made the difference, while when things go wrong, they blame it on external factors like economic depressions, stubborn employees, or just bad luck (Miller & Ross, 1975; Brown & Jones, 1998).

Stories may change fundamentally during the course of events. These changes happen in so-called narrative crises. The characteristic of a crisis is that old stories are challenged successfully because of the occurrence of anomalies, events that do not fit. Because of strong anomalies, the old story collapses like a house of cards, and with it the sense and meaning of all actions (Van Lente, 1993; Deuten, 1994). To resolve a crisis, a new story has to be created that incorporates the anomalies and makes former and future actions meaningful. MacIntyre (1980) refers to Shakespeare's *Hamlet* as an exemplary study of such a crisis. When Hamlet returns from Wittenberg to the castle in Elsinore he is confronted with a problematic situation, in which he has to choose between different narrative schemata to make sense of what is going on. "There is the revenge schema of the Norse sagas; there is the renaissance courtier's schema; there is the Machiavellian schema about competition for power," (MacIntyre, 1980, p.55). If he adopts one schema, he can fill in the whole story. It becomes clear who is good, who is a traitor, what has happened for what reasons, and what should be done to complete the plot. But it is characteristic for a crisis that it is not evident which schema to choose. They all make some sense, but there is not one that makes significantly more sense than the others. During a crisis, the ambiguous and complex character of action

[10] Latour (1988) uses the term 'actant' rather than 'agent', because 'agent' has a human connotation. In a story, agency can be attributed to non-humans such as exchange rates, tornadoes, and wild animals in the same way as to human beings.

[11] As an example, consider *Exercises in style* by the French writer Raymond Queneau. In this book, he tells in 99 different ways an incident in a streetcar. Each time, he changes style and perspective, which has the effect that, in the end, the reader would not know (anymore) what 'actually' happened (Queneau, 1958).

comes to the foreground, and only sinks into the background again, for the time being, when the crisis has been resolved with a new, more convincing story.

Whether a story is convincing or not is determined in the interaction between the storyteller and the audience to which the story is told (Latour, 1988). In order to be considered convincing, storytellers anticipate the judgment of their audience by binding themselves to the discursive rules that are upheld by the audience they address. In the classic design discourse in management literature, attributing agency to only a few purposeful, rational acting individuals – mostly managers and their consultants – is an important rule (Visscher, 1999). Just as the mainstream of 19th century historians told their audience that Napoleon and Kutuzow won battles with their ingenious strategies (Runia, 1995), many journalists (Chen & Meindl, 1991), management gurus (Clark & Salaman, 1998), executives and academics (Knights & Morgan, 1991, 1995) tell us that successful organizational changes are achieved through the brilliant designs of talented managers, the Napoleons of our time.

Classic design stories are typically meant to be told to outsiders – people who were not, are not, and will not be part of the action (cf. Runia, 1995). They may be told by managers for several reasons. Classic design stories fulfill the expectations of many external stakeholders and the public at large, who like to see smart designers and strong leaders. To use a metaphor, they wish to see managers as skippers on their organizational ship, and to comply with this image, managers calculate a course, draw it on a map, and turn the wheel visibly, even if they realize that the wheel is not directly connected to the rudder. Classic design stories give managers recognition, and strengthen their self-confidence and self-esteem (Knights & Morgan, 1991; Clark & Salaman, 1998). They also help managers to justify their hierarchical position, salary, and potential option-bonuses to shareholders, since these stories highlight the importance and added value of managerial plans and actions. Classic stories picture managers as the purveyors of organizational success, and, as Mintzberg (1994) observed, leave room for blaming failure on the implementation when things go wrong. Furthermore, classic design stories help to mobilize financial and other resources (Deuten & Rip, 2000). Financiers and other providers of resources tend to have faith in a (wo)man with a plan.

Besides the classic, rationalist way of telling design-stories, practitioners have another, contingent way of telling their stories (cf. Gilbert & Mulkay, 1984; Rip, 1994; Bal, 1999). These stories stress the chaos, contingencies, and uncertainties of events. Coincidence, good luck, and bad luck may play a role, and are not marginalized beforehand. The managers are not inevitably the heroes of the story, nor are the heroes necessarily smart, solitary, and persevering. These stories are typically told among insiders, in order to capture how it was, is, or will be when the action is still going on, the story has no end yet, and the narrative schema may be challenged by anomalies. Contingent stories reflect the 'real-time' practices of the officers and soldiers on the battlefield of Borodino, not the *a priori* rational plans of staff-generals or the well-structured *a posteriori* accounts of historians.

New generation design stories are contingent stories. They attempt to capture the chaos and contingency of design processes. But there is more to it. Telling new generation design stories also involves the reflexive recognition of the narrative nature of order. This implies that the construction and telling of stories is used to bring about order in design processes. This might even include the telling of classic design stories if this would be helpful in the course of process. In this sense, new generation designing is a meta-approach, of which classic design may be a part.

2.2.2 Rules in practices

The Borodino theory argued that practice is messy, complex, and ambiguous, and that all order is fragile and contingent. This does not imply that order is non-existent or unreachable, and thus, that the construction of a practice-based methodology would be a mission impossible. The battle of Borodino was also prestructured in many ways, for example by the colors of the uniforms, the hierarchy in the army, and the weaponry of the soldiers. The soldiers also had their methodology. They were trained in the rules of warfare, formally and through experience, which constrained and enabled them to act with purpose and intent in the unique and ambiguous situations on the battlefield. For the construction of a practice-based methodology, these rules are the fundamental building blocks. This section will investigate the nature of

these rules, their role in practices, and their relation to design methodology. As a start, the concept of practice will be discussed.

What is a practice? Giddens (1979) uses the term practice as a synonym for activities, and Gremmen (1993) defines a practice as a societal domain of action. A practice is about doing things. It is not the same as a profession. Some practices may be claimed successfully by the members of a profession as theirs, but a practice is not constituted by a group of people and their diplomas, but by actions. Nor is a practice an equivalent of culture. A culture is the set of values, basic assumptions, norms, symbols, stories, etc., that a group of people has in common, which may be created by and used in actions, but are not actions themselves[12]. Pickering (1992) clarifies the difference and connection between cultures and practices with the following metaphor: "a hammer, nails, and some planks of wood [elements of a culture; KV] are not the same as the act of building a dog kennel [a practice; KV] – though a completed dog kennel might well function as a resource for future practice (training a dog, say)," (Pickering, 1992, p.3).

Rules form an important element of practices. They are used for learning a practice, motivating, justifying, and evaluating actions, and guiding and judging practitioners (Wittgenstein, 1953; Bittner, 1965; Baker & Hacker, 1985). Without rules, it would not be possible to distinguish competent practice from incompetent practice, or to motivate, justify, or evaluate actions at all. Practices can be distinguished from each other by the sets of rules that guide competent action within them. The set of rules that constitutes competent dog kennel building, for instance, is different from the set that constitutes competent dog training, which makes them into different practices.

Practices have different scales and scopes. The scale of a practice has to do with the number of competent practitioners, ranging from one person to millions of people. The scope of a practice has to do with the range of actions that is included in a practice. When considering a set of practices

[12] This definition of culture, based on Pickering (1992) and Van Muijen, Koopman & De Witte (1996), is primarily meant to clarify the contrast with a practice. For an extensive discussion of definitions of culture, see, for instance, Kroeber and Kluckhohn (1952), Smircich (1983), or Bodley (1994).

in their scale and scope, complex interrelations may appear. Practices may be connected because individuals or groups of individuals master several practices. And they may be connected because the scopes of several practices overlap. When a practice with a small scope is nested entirely within a practice with a larger scope – as puncture-mending practice is nested in bicycle repair practice – one practice can be considered a subpractice of another. When the overlap is partial, they can be regarded as superimposed (Bloor, 1983), which means that in the overlap area, practices interfere. Practitioners working in that area, if they master both practices, are confronted with different and sometimes conflicting rules. They may cope with this through eclecticism, one time drawing on the rules from one practice and another time on the rules from the other (cf. Boltanski & Thévenot, 1991; Dodier, 1993), or by developing a new overall-practice that encompasses the others as subpractices.

There are different kinds of rules of practice. An important distinction is between constitutive rules and strategic rules (Cavell, 1979; Van den Berg, 1990; Gremmen & Kroes, 1994/1995)[13]. In a gaming metaphor, constitutive rules are the rules that define the game, such as, for example, 'a soccer team consists of eleven players', or 'when the ball crosses the goal line, this is called a goal'. These rules state what it is to be a soccer team, to make a goal, etc. Strategic rules prescribe, prohibit, permit, encourage, or discourage certain actions, in order to be successful within the rules that constitute the game. They relate actions to the point of the game, such as winning a match in soccer practices, or driving a car safely and efficiently in driving practices. An example of a strategic rule is 'the best way to take a penalty is to pick a corner and shoot, independent of what the keeper does'.

Another important distinction is between rules and rule-formulations, and correspondingly, between methodology as a set of rules and methodology as a set of rule-formulations. A rule-formulation is an articulation of a rule, an attempt to express it in a certain language. One rule may be expressed in many different rule-formulations. The rule formulation 'add 2, starting with 1000', for instance, might also be formulated as 'tel er 2

[13] Cavell (1979) makes a similar distinction between rules of 'ought' and 'must', Van den Berg (1990), in Dutch, between 'stelregels' and 'spelregels', and Gremmen and Kroes (1994/95) between 'spelregels' and 'speelregels'.

bij op, beginnend met 1000' for Dutch pupils, as '1000, + 2, +2, etc.', or as '1000, 1002, 1004,…'.[14] Methodology as a set of rules is the methodology-in-use of competent practitioners, methodology as a set of rule-formulations is a methodology-on-paper, the result of reflection, codification, systematization, validation, and amelioration activities. A methodology-on-paper is a stylized narrative about how to act, possibly in the form of procedures, phase-models, diagrams, 'if…then' statements, or best practice stories. Constructing and telling these narratives is a practice of its own. This practice may be closely related to the practice to which it refers, for instance when methodological narratives are told as a part of explanations, justifications, or evaluations of competent practitioners. But it may also be uncoupled from practice, and become a part of academic work, or of practitioners' professionalization activities. In those cases, the point of articulating rules lies outside the original practice itself, in the

[14] This example refers to a famous example from Wittgenstein's (1953) *Philosophical Investigations*. A boy is told to follow the rule 'add 2, starting from 1000'. He performs this action correctly with numbers below 1000, but after that he starts writing down '1000, 1004, 1008'. Apparently, he regards adding over a 1000 as a new situation, and applies the rule 'add 2, starting from 1000' as what people who are competent in adding practices, would regard as, 'add 2 up to 1000, 4 up to 2000, 6 up to 3000, and so on'. He might also have written the series '1000, 10002, 100022, 1000222', '1010, 1100, 1110', counting binary, or write down '1002' and stop. Wittgenstein uses this example to explicate the paradox that many courses of action may be thought to be in accordance with the rule 'add 2, starting from 1000'. He says: "no course of action could be determined by a rule, because every course of action can be made out to accord with a rule. […] if everything can be made out to accord with a rule, then it can also made out to conflict with it. And so there would be neither accord nor conflict here," (Wittgenstein, 1953, section 201). This paradox has aroused a lot of discussion among philosophers and social theorists (e.g. Bloor vs. Lynch in Pickering, 1992). A solution that has been proposed is to say that we know how to follow a rule, because we know how to interpret the rule correctly. However, this solution has some unattractive facets. An interpretation is a rule to apply a rule, and has the same 'shortcoming' as other rules. It is possible to add a rule to interpret rules, but this would lead to a regressus ad infinitum. To stop this regression, so-called rule skepticists argue that through education, training and socialization, we have been taught which interpretation is regarded as correct (Kripke, 1982; Bloor, 1983, 1992). According to skepticists, practices are dependent, through interpretations, on social structures and culture. Another solution is to assert that Wittgenstein's paradox is about the relation between rule-formulations and practices and not about the relation between rules and practices. Rules have an internal relation with practice, they are rules-in-use (Baker & Hacker, 1984, 1985). According to the propagators of this solution, the mistake of the rule skepticists is to isolate rules from practice, and to create a 'quasi-causal' picture of rule – following, in which a rule is to determine practice (Shanker, 1987; Lynch, 1992). If rules and practices are considered internally related, the question "'how does the rule determine this as its application?' makes no more sense than: 'how does this side of the coin determine the other side as its obverse?'" (Baker & Hacker, 1984, p. 96).

contribution to an academic or professionalization discourse.

The set of rules that is used in practice may change over time. In principle, all rules are temporary and contingent, as they may be replaced by emerging new rules or may just become obsolete (cf. Dewey, 1938; Giddens, 1984). The status and stability of rules in a practice are related to the professionalization and the standardization of that practice. In a fully professionalized practice, competent performance is restricted to a well-demarcated group of practitioners, which has successfully established jurisdiction over an area of working life and is protected by government (Johnson, 1972; Abbot, 1988). Practitioners have to go through professional education and receive a certification before they are allowed to practice (Hughes, 1963; Mok, 1978). Rules are used in teaching novices, guiding practitioners, and judging their competence. Violating the rules of practice may be punished severely, potentially by expulsion from the profession. In such professionalized practices, the contingent nature of the rules of practice is bracketed, and they become quasi-stable. The set of rules is not entirely fixed, but it is upheld officially, and the entry of new rules and the exit of old ones is regulated.

The existence of quasi-stable rules opens up opportunities for codification of rules in a standardized set of rule-formulations, for instance in a code of conduct, a uniform body of knowledge, or a shared methodology, which can be used for teaching or judging practitioners. In this way, professionalization enables standardization, and standardization, in its turn, enables further professionalization[15]. Standardization does not only occur in professionalized practices though. Doing calculus or speaking English, for instance, are standardized practices, but not professionalized. Characteristic of fully standardized practices is that constitutive rules are well established and the strategic rules are clear-cut. It is clear what the practice encompasses, which actions are allowed, and what their meaning is, and practicing involves the application of standard routines and techniques. In standardized practices, rules can be codified in a systematic and consistent way, and sets of rule-formulations play an important role in teaching, guiding, and judging actions. In less

[15] Cf. Nonaka's spiral of knowledge creation (Nonaka, 1994; Nonaka & Takeuchi, 1995), in which cycles of subsequent articulation, uniform codification, internalization, and sharing of rules is the motor of creating new knowledge in an organization.

standardized practices, constitutive rules are more open to molding by the involved actors. And strategic rules are more complicated and volatile than in standardized practices, more or less resistant to uniform codification.

2.2.3 Describing organizational design practices

To be able to reconstruct the rules in organizational design practices and to lay a basis for a practice-based design methodology for the new generation design approaches, a new vocabulary is required that captures what is actually happening in design practices. In this section, this vocabulary will be developed, based on design literature and additional literature from the sociology of technology. The overall perspective on designing can be characterized as the co-construction of 'function' and 'form', with attention for reflection-in-action, heterogeneous engineering, and bricolage.

Designing as the co-construction of function and form

Designing is the creation of forms that perform certain functions (cf. Hauffe, 1995). In organizational design, these forms range from corporate strategies and topstructures, to reward systems and workflow systems. In the classic design approach, the relation between form and function is captured in the adage 'form follows function'. At the beginning of a design process, functional requirements are articulated, typically in the form of a problem statement and a series of constraints. Then, alternative forms are created, which are subsequently evaluated against these functional requirements (see section 2.1.1). In the new generation of design approaches, this is an exceptional rather than a usual situation. While advancing in the creation of a form, requirements may prove to be too demanding, or new functional opportunities may arise. In addition, the complexities of the design situation make it rarely possible to articulate functional requirements exhaustively at the beginning of the design process. In complex situations, it is more sensible to limit oneself to global, tentative, and ambiguous functionalities, which are to be further developed and articulated in the course of the design process, together with the construction of forms (Monge, 1993). In new generation designing, functions and forms are co-constructed (cf. Clarke & Fujimura, 1992; Bucciarelli, 1994).

Thinking in terms of co-construction helps to go beyond the debate whether design processes should be problem-driven or solution-driven, or in design-terminology, function-driven or form-driven. Both function and form can drive a design process to a certain extent. In general, a design process starts from an inconsistency in function and form, and aims at constructing consistency. Inconsistencies occur when existing forms or functions change over time and do not fit with their counterpart anymore. If functional requirements change, a form can become outdated or old-fashioned, requiring redesign. And if the forms change through the dynamics of an organization (cf. Schuring, 1998), this may, in case of deterioration, require a redesign of the form, or in case of gradual improvement, ask for reconsideration of the functionalities. Inconsistencies also arise when designers envision forms and functions that could be worth realizing. They can, for example, imagine what they could do if they had a 'learning organization', or what marketing strategy they would need if they entered a new market segment. Or they can imagine which additional functions would be possible if an existing form were better exploited. A combination of these inconsistencies may drive design processes. As an example, consider a manager reading about Tushman and O' Reilly's (1997) 'ambidextrous organization', an organizational structure that enables both gradual and radical innovation. This manager might wonder 'how innovative could I be if I had an ambidextrous organization', imagining the opportunities of a form. And at the same time, he or she might articulate the previously tacit feeling that the organization has a problem in its outdated organizational structure. And furthermore, managers might think about the existing organizational structure, and how they could exploit it better to make it do what ambidextrous organizations do. If they would decide to start an organizational redesign, then a mix of envisioned and recognized inconsistencies in forms and functions could be regarded to drive the process.

A co-constructive design process is completed when function and form fit. In principle, a design process is never totally completed, since any consistency is temporary, fragile, and open to disturbance (Nystrom & Starbuck, 1981). However, there are two points in the process where a temporary closure occurs. When function and form reach consistency in the virtual world (Schön, 1983), e.g. on paper, the design process comes to an end. And when they reach consistency in the real world, the

implementation process ends. These two moments mark the concluding points of two practices, design practices and implementation practices, respectively. Design and implementation practices may be superimposed in a concrete situation, but they are not the same, as design practices are about making a design, while implementation practices are about realizing change. The rules for creating designs are not the same as the rules for realizing changes, and the result of the design process should not be judged in the same way as the result of the implementation process. For this reason, Rip, Westerheijden, and Van Vught (1993) distinguish between the quality of a design and the success of a design. The success of a design does not only depend on the quality of the design, since things can go wrong – or turn out exceptionally well – in the implementation. A good design may still be unsuccessful, and the other way around, a poor design might be successful.

In the classic design approach, the two points of closure mark the endpoints of two stages in the design process. The first moment concludes the design stage, the second the implementation stage. In this way, design and implementation practices, as well as judging the quality and success of the design, are kept strictly separate. In the new generation design approaches, such a strict separation is only one of the possibilities. Design and implementation may also run more or less in parallel, depending on the contingencies of the situation, and in the extreme case, design and implementation processes may even come to a closure at the same moment (cf. Eccles, 1994). The quality and success of the design also become more related, as a good design anticipates implementation, and, in case of parallel processes, takes into account the apparent successes and failures in the implementation. And a good implementation process adapts to the characteristics of the design, and feeds its outcomes back into the design process.

Reflection-in-action

The co-construction of function and form has a component of ‘reflection-in-action’ (Schön, 1983, 1987). Reflection-in-action starts with putting a ‘frame’ or ‘discipline’ on a design situation, which creates a coherent, doable, and productive inconsistency in function and form. According to Schön, good designers take a frame as a hypothesis, a ‘what if’, and then ‘make moves’, i.e. explore the implications of the frame in terms of consequences and necessary conditions, and assess them in

terms of coherence, doability, and productivity. "[T]he designer evaluates his moves in a threefold way: in terms of the desirability of their consequences […], in terms of their conformity to or violation of implications set up by earlier moves, and in terms of his appreciation of the new problems and potentials they have created," (Schön, 1987, p.63). When designers get stuck in a frame, because the consequences prove too unfavorable, or because important conditions cannot be fulfilled, the situation is reframed by putting a different discipline on it. Consider an example where a designer frames a situation as an organization in need of Business Process Redesign (BPR), the drastic redesign of structure and processes with the primary process as its basis (Hammer & Champy, 1993). He or she should consider 'what if this were an organization in need of BPR?', and elaborate the frame in terms of conditions and consequences. One of the conditions is that a strong management is required to implement BPR, and if there are indications that this is not the case in the organization at hand, the designer may abandon the BPR frame, and reframe the situation, for instance as an organization in need of fine-tuning of the current structure, and strengthening of the management[16].

Good designers are able to frame situations without reducing them to standard problems (Schön 1983, 1987). Their naming of the situation is not just a process of pigeonholing, categorizing it as 'BPR' or 'motivational problem', and applying the right method or solution for it. It is a process of 'seeing-as', recognizing a new situation as a new variation of a situation that has been encountered before, and 'doing-as', acting in the new situation as in the former situation – sometimes without being able to articulate the similarities and dissimilarities. On the basis of a 'seeing-as', designers explore the peculiarities of a situation. Their 'seeing-as' is a hypothesis and they experiment on the spot to find out whether the hypothesis can be confirmed[17]. They engage in 'a game with

[16] This example was told by a management consultant interviewed for this study.

[17] There are differences between on-the-spot experiments in design practice and experiments in (positivist) research practice. The main difference is that "the practitioner makes his hypothesis come true, thereby violating the canons of controlled experiment – dear to technical rationality – that call for 'objectivity' and 'distance'", (Schön, 1987, p. 73). According to Schön, however, this does not make an experiment in practice self-fulfilling. The relation of a practitioner to the situation is 'transactional', (Dewey & Bentley, 1949). A designer shapes a situation, but in a conversational way, in which the situation may 'say' "I will not be shaped like that." Shaping and understanding are parallel processes. "[I]t is a game with the situation

the situation', making moves and listening to the 'back talk' of the situation in order to explore it; they find out the intended and unintended consequences of their moves, and confirm or refute the adequacy of their 'seeing-as'.

In a process of reflection-in-action, a design situation may become very complex (Schön, 1987). Based on a frame, a web of consequences, conditions, and appreciations may be constructed. In this web, all moves are reversible, and even the frame can be broken open and exchanged for another one. The web comprises a large amount of alternative forms and functions. A skilled designer can develop and maintain a web of great complexity, but it is impossible to keep all possibilities open all the time. Therefore, designers must fix certain points in the web by making a decision as to when their experiments have filled them with enough confidence about the most productive route. By making a decision, designers create a criterion to judge further moves, which have to be consistent with the decision. This point can be called a 'design node', which has binding implications for further moves and thus creates a path-dependency (Lipton, 1991). By fixing one design node after another, designers gradually narrow down the range of potential forms and functions, until all points are fixed and the design is completed.

Heterogeneous engineering

The co-construction of function and form has a component of heterogeneous engineering (Law, 1987; Turnbull, 1993; Rip et al., 1993). Heterogeneous engineering is the process of aligning cognitive and socio-political elements to create and realize a good design. This alignment comprises the institution of a design space in which functions and forms are to be constructed, the inclusion and exclusion of people in and from it, and the division of design roles among the people included (Law & Callon, 1992). In the classic design approach, socio-political processes are ignored or marginalized, but in new generation design approaches, the designing of organizations is a mixed cognitive and socio-political process (Pfeffer, 1978). Cognitive and socio-political processes are two sides of the same coin. Even when designers want to follow a classic design approach, they need to realize a protected design space, include a few

in which he seeks to make the situation conform to his hypothesis but remains open to the possibility that it will not," (Schön, 1987, p.73).

people and exclude all others, and safeguard the mandate to operate in this secluded space. The alignment of cognitive and socio-political processes is mostly a tough accomplishment. Designers may encounter dilemmas, since what is cognitively best may not always be politically tenable, or the other way around (Van Heffen, 1995). Heterogeneous engineering is the process of solving these dilemmas and effectuating mutual reinforcement of cognitive and socio-political processes.

Bricolage

The third component of the co-construction of function and form is 'bricolage', i.e. the situational tinkering with the resources at hand (Lévi-Strauss, 1966; Weick, 1993; Rip et al., 1993). The designer as a 'bricoleur' is a kind of Jack-of-all-trades, improvising a design with the tools and materials he has at hand. Harper (1987) gives as an example a man from New York who created a tractor from the motor of a hay baler, wheels of a Chevrolet, the gas tank of an outboard motor, and several materials he had accumulated in his shed over the years. The repertoire of a bricoleur is "heterogeneous, because what it contains bears no relation to the current project, nor to any particular project, but is the contingent result of all the occasions there have been to renew or enrich the stock […]. [T]he elements are collected or retained on the principle that 'they may always come in handy'. Such elements are specialized up to a point, […] but not enough for each of them to have only one definite and determinate use," (Lévi-Strauss, 1966, p. 17-18).

Productive bricolage requires a set of tools and materials that is generic and flexible enough to be useful in any project, regardless of the specific design situation. Building such a repertoire has a receptive and coincidental nature, since bricoleurs do not search purposefully for a specific material, lacking the guidance of a specific problem. They stumble over materials that are potentially useful, and pick them up without knowing in advance whether and how the materials will be used. But it also has an active side. Bricoleurs go to places where they are likely to stumble over materials, recognize their potential functions and store them in a way that they can be retrieved when needed. They also develop an intimate knowledge of their tools and materials and their potentialities, in particular by using them differently in different projects (Weick, 1993). In design processes, materials are mobilized from the bricoleurs' repertoires, contextualized and transformed in order to be useful for the

project at hand. While improvising with these materials, bricoleurs closely watch the emerging forms and their functionalities, shaping them step-by-step. There is no blueprint, although one may be constructed in hindsight, reflecting the design that has been created. In the design process, some specific resources may prove to be lacking in the 'shed' of the bricoleur. Acquiring these resources is then project-specific and problem-driven, but it occurs within the context of bricolage.

2.3 Conclusions

The purposes of this chapter were to give an overview of organizational design literature, and to construct a theoretical framework, containing a background theory and a vocabulary for studying organizational design practices and creating practice-based design methodology. The overview of literature has shown that a new generation of design approaches is taking shape, which employs a wider definition of designing than the classic design approach, which is less control-oriented, and which has more openness for the variety and complexity of designing. This new generation design approach brings design literature closer to practice. The present study can be located within the development of this new generation.

The background theory of this study, the so-called Borodino theory, conceptualizes the chaos, contingency, and ambiguity of practice, and explicates that order is created from chaos and under the condition of chaos through narratives. Narratives are more or less bound to discursive rules, or acceptable ways of storytelling. This clarifies the existence of the classic design approach in literature and the differences with the new generation design approach. Classic design literature has its roots in rationalist ways of telling stories, while new generation design literature is based on contingent ways of telling design stories. New generation design is based on stories that stay closer to practice, but it also involves the reflexive recognition of the narrative nature of order, which means that narratives are consciously used to create order in design processes.

The Borodino theory emphasizes chaos, but does not imply that designers just thrash about randomly, or that a methodology based on design practices would be impossible. There are rules in practice, which play a role in teaching, guiding, motivating, and evaluating designing and

designers. A practice-based design methodology attempts to capture these rules in rule-formulations that reflect the methodologies-in-use of competent practitioners. In principle, these rules and rule-formulations are contingent, but they may attain quasi-stability in professionalized or standardized practices. In chapter 4, the professionalization and standardization of practices in the domain of management consulting will be investigated.

To describe the rules of organizational design practice, a vocabulary has been developed. A co-constructionist perspective has been elaborated, in which designing is seen as a process in which function and form are co-constructed. The co-constructive design process has three key components, viz. reflection-in-action, heterogeneous engineering, and bricolage. The process of reflection-in-action consists of two complementary parts: first, the identification of an inconsistency in function and form, or the process of framing, and second the construction of a new consistency in function and form. Framing encompasses the exploration, assessment and disciplining of design situations. The construction of a new consistency consists of two complementary parts: the spreading out of a web of alternative designs and the narrowing down of that web through the creation of design nodes. The second component of the co-constructive design process, heterogeneous engineering, highlights the alignment of cognitive and socio-political processes. This encompasses the management of design spaces and the inclusion and exclusion of people. The third component, bricolage, highlights the resources for the design process. Designers collect and construct a variety of resources, and store them in their repertoire. Bricolage is tinkering and improvising with these and other resources in concrete situations. In chapter 5, this vocabulary will be used to describe management consultants' design practices and to lay a basis for practice-based design methodology.

3

Research design

In the preceding chapter, a theoretical framework has been developed for the empirical study of design practices in management consulting. The purpose of this chapter is to elaborate and account for the research design of the empirical study. First, in section 3.1, the overall design will be discussed, followed by a discussion of the separate parts, a survey and a series of in-depth interviews in section 3.2 and 3.3 respectively.

3.1 The overall research design

The purpose of this study is to develop design methodology that is based on a reconstruction of practices. This practice-based methodology is created by going back-and-forth between, on the one hand, what competent practitioners do to create a design, and on the other hand, a coherent set of rules that accommodates these practices as well as possible. In this way, a methodology-on-paper is created that reflects designers' methodologies-in-use (cf. Glaser & Strauss, 1967; Strauss & Corbin, 1990)[18]. In the terms used by Thagard (1988), this state, in which a methodology is brought in balance with actual practices, can be called a narrow reflective equilibrium. To construct robust methodology, he goes a step further, to a so-called wide reflective equilibrium. This is a state in which the narrow equilibrium is supported by arguments concerning the productivity of the rules, their spread among practitioners, and their

[18] Glaser and Strauss (1967) and Strauss and Corbin (1990) developed a method for constructing so-called 'grounded theory' by going back and forth between practice and theory. In analogy to their terminology, practice-based methodology could be called 'grounded methodology'.

accommodation in a background theory – in this study, the Borodino theory. In this way, the normative claim of the constructed design methodology is strengthened.

This method combines an insider's perspective with an outsider's perspective. It takes the methodologies-in-use of competent designers, the insiders, as a starting point, and uses a vocabulary and background theory, constructed by the researcher, to describe and judge these methodologies-in-use. Such a combination is not obvious, since approaches from the inside and from the outside are rooted in different research traditions that are normally presented as opposed to each other (e.g. Burrell & Morgan, 1979; Denzin & Lincoln, 1994). The insider's perspective is rooted in ethnography, hermeneutics, and interpretativism (e.g. Garfinkel, 1967; Geertz, 1973; Bate, 1997), while the outsider's perspective is rooted in positivism and functionalism (e.g. Donaldson, 1996). A pure insider's or pure outsider's perspective would not suffice to answer the methodological question of this study, though. An approach from the inside runs the risk of what anthropologists call 'going native', which means that researchers internalize the vocabulary of the 'tribe' of practitioners to such an extent that they cannot describe or explain those practices anymore to people who do not belong to that same tribe. Furthermore, 'going native' makes it difficult to criticize the productivity of generally shared practices, which weakens the normative basis of methodology. An approach from the outside, on the other hand, can disregard methodologies-in-use, and thus miss opportunities to learn from competent practitioners.

To reconstruct organizational design practices, a mixed research design has been created, combining qualitative and quantitative techniques (cf. Tashakkori & Teddlie, 1998). The qualitative part consists of a series of in-depth interviews with carefully selected, highly competent management consultants. The quantitative part, which precedes the qualitative part, consists of a survey among mostly senior Dutch management consultants. The purpose of the qualitative study is to reconstruct design practices in-depth, investigating what management consultants do to make organizational designs, how they do it, and especially for which reasons. For this purpose, in-depth interviews are the appropriate means, since they provide an effective and efficient way to approach organizational designing from the inside and to reconstruct the rules of practice.

Other qualitative methods that were considered for the reconstruction of design practices are protocol analyses and in-depth case-studies. Protocol-analysis studies, in which designers think aloud while doing an assignment, have been carried out by Schön (1987), Dorst (1997), and Werr (1999). These studies show the reasoning processes of designers in great detail, but they are not adequate for this study. They capture only cognitive processes, not interactive processes, and these processes are essential in organizational designing. Besides, in organizational design they would have to be based on stylized 'paper' cases (cf. Werr, 1999), not on real cases. This would reduce the complexity, uncertainty, and messiness of the designing considerably, while precisely the designing in complex situations is a focal point of this study. An in-depth case-study, involving the observation of and participation in design processes – preferably for a long period of time – is carried out by Bucciarelli (1994). This study covers cognitive as well as interactive processes and captures the messiness of designing. But, in addition to the practical problem that gaining access to the actual interaction between consultants and clients is extremely difficult (cf. Jonker, 1993), a drawback of in-depth case-studies is that they are very time-consuming. This implies that only one or a few studies would be possible in a Ph.D. study, which is not sufficient to draw conclusions about the design practices in management consulting, but only about the part of practice that has been studied. Thus, the variety and heterogeneity of practices, as it is expected to exist in management consulting (see chapter 4), cannot be captured in such a study. A series of in-depth interviews gives better opportunities to cover the whole practice. A potential drawback of interviews in comparison to protocol analysis and in-depth case-studies is that they might not reconstruct what designers really do, because they rely on retrospective accounts of the involved designers, which may be colored and biased. The created interview design tries to minimize this risk, as will be argued in this chapter.

The quantitative part of the study, a survey among senior management consultants, has a triple purpose, supporting and complementing the qualitative study in several ways. First, the survey is meant to identify highly competent management consultants for the in-depth interviews. Second, it is used to investigate the structure of the domain of management consulting. This is needed to be able to put rules of practice

in their context and make a comparison with other practices possible. And third, it is meant to test the background diagnosis of this study, i.e. the presumed gap between design practices and phase-model methodologies. Diagnosis-testing is similar to Schön's (1987) frame-testing, in which the exploration of the situation and the testing of the frame go hand-in-hand. In this case, the survey explores management consulting practices and investigates whether these practices do or do not fit within the diagnosis. In general, they do, as will be explicated in the following chapter. But had the survey concluded that consultants actually do follow phase-model methodologies and thus reject the diagnosis, this would have led to a reframing of the research project, and a change of the design of the in-depth interviews.

3.2 Survey

The purposes of the survey are to identify highly competent consultants for the interviews, to investigate the structure of the domain, and to test the background diagnosis of the study. This section first elaborates the content of the survey in relation to these purposes, and then focuses on the way in which the survey has been constructed, conducted, and analyzed.

3.2.1 Content

The survey consists of two parts (see appendix B for the complete list of survey questions). The first part concentrates on the identification of consultants for the interviews, the second part on the exploration of consulting practices. The survey contains both open and closed questions. The majority of questions were closed, making efficient comparison of respondents possible, and guaranteeing the minimal required information that was necessary to test the background diagnosis. Open questions were used for the consultants to characterize themselves and to give them the opportunity to add comments, in their own words, to the closed questions about their practices. In the first part, respondents could nominate consultants they considered highly-competent. They were asked to give names of consultants whom they thought to be among the best, in their own field of consulting as well as in the whole domain. The number of nominations consultants received in this way is a measure for their reputation in the field and an indication for their competence (this will be

elaborated in the next section). Asking consultants to nominate other consultants, rather than asking clients or trying to find other external indications of their competence, fits the idea of management consulting as a practice. The competence of practitioners can better be judged by other practitioners, who themselves have acquired the rules of practice, than by outsiders, who are (at least partly) unaware of these rules. The respondents were also asked to motivate their nominations, thus articulating the criteria they employ to judge high competence. Besides nominating 'the best', respondents could also nominate consultants with an innovative and promising way of working. This is done because innovative consultants bring in new rules of practice, and including them in the in-depth interviews is a way to capture part of the dynamics of the practice.

The first part of the survey also contains questions about the working area, the experience, the education, the function, and the firm of the respondents. These data can be used to give a characterization of the group of respondents as a whole, and, more importantly, to identify structures in the domain. As will be explicated in chapter 4, the data about working areas and the firms of the respondents in relation to their nomination behavior especially serve this purpose.

The second part of the survey concentrates on the exploration of management consulting practices and the testing of the background diagnosis. Respondents were asked questions about the fixed, variable, and case-based nature of their ways of working; about the forms, functions, and use of their phase-models; about the contingency factors to which they adapt their ways of working; about the data-bases they use; and about the way in which their way of working has been developed[19]. Roughly speaking, to conclude that respondents really follow phase-model methodology, they must have a predominantly fixed way of working, possess a phase-model, use it as a guideline, and follow it strictly, barely adapt their way of working to contingency factors, and attribute a relatively important role to literature and education for the development of their way of working. On the other hand, to conclude

[19] The second part of the survey also contains a few questions about the attitude of the respondents towards their work, their main task, their clients, and their clients' organizations. These questions were meant for another research project and are not used in this study.

that respondents do not follow phase-model methodology, they must have a predominantly variable way of working, not possess phase-models, or use them very flexibly and not for guidance, adapt their actions highly to contingency factors, and have developed their way of working mainly through reflection on their own experiences. Rather than a complete confirmation or rejection of the background diagnosis, the data may also lead to a more nuanced diagnosis that lies somewhere in-between.

3.2.2 Process

The survey was conducted in the fall of 1997. It had been constructed in the months before, with assistance of an external survey expert, and was pretested on two management consultants. The survey was sent to all subscribers of the magazine *Management Consultant*, in cooperation with Kluwer Bedrijfsinformatie, the company that publishes the magazine. The list of subscribers comprises the active members of the Ooa, the Dutch national association of management consultants[20], but also retired members and other people with a professional interest in management consulting. In some cases, the magazine, and thus the survey, was sent to consulting firms rather than to individual consultants, who did the internal distribution themselves. In total, approximately 2500 surveys were sent, of which about 1000 were sent to active members of the Ooa. An accompanying letter briefly explained the background of the survey and specified the target group, viz. active management consultants with some experience in the field. Making a more adequate selection of all the subscribers before sending the survey was not possible, since it would require a lot of effort and information about the subscribers that was not readily available. The accompanying letter also said that if respondents had little time, they could skip the second part of the survey, since the identification of excellent consultants was considered the primary purpose of the survey, at least at that stage in the study.

Of the 2500 distributed surveys, 279 were filled in and returned. This is a response-rate of about 11%, a number that, according to a survey expert at the publishing company, is not unusual for surveys among

[20] The survey was supposed to be distributed with the knowledge of the Ooa, but because of a misunderstanding in the communication between the publishing company and the Ooa, this was not the case. As a result, the board of the Ooa was ‘not amused’ with the survey, which may have influenced the response-rate negatively.

management consultants. But because of the 'polluted' address-list that has been used, the response-rate in the actual target group of active senior management consultants is probably much higher, although no accurate estimate can be made with the available information. The group of respondents is in general senior and experienced. Only 6% of the respondents consist of junior consultants, and only 10% have less than 3 years experience as a consultant. The others are more senior and experienced. Of the respondents, 62% even have more than 10 years experience and 44% hold a management-position in a consulting firm. At least 75% of the respondents have received an academic education, at least 8% have a Ph.D., and about 20% have received specialized postgraduate education in management consulting at the Free University in Amsterdam or the SIOO, an interacademic center for education in consulting and change management. With only a few exceptions, the respondents work as external consultants with a consulting firm. As a group, they cover all kinds of possible firms: big and medium-sized international and national firms, as well as small firms and self-employed consultants.

The survey data was entered in a data-entry program, from which the quantitative data was exported to SPSS and the qualitative data to Word. The quantitative data underwent relatively simple statistical analysis in SPSS, mainly counting, some cross-tabulations, and a few calculations of correlations. The qualitative data was clustered and used to complement the quantitative data. The results as well as the specific operations on the data will be presented in chapter 4.

3.3 In-depth interviews

The purpose of the interviews is to reconstruct design practices in-depth, investigating what management consultants do to make organizational designs, how they do it, and especially for what reasons. This section first elaborates the content of the interviews in relation to this purpose, and then focuses on the selection of interviewees and on the way in which the interviews have been constructed, conducted, and analyzed.

3.3.1 Content

To reconstruct practice, it is important to start from the interviewees'

concrete actions and proceed from there to the underlying rules by inviting them to motivate, explain, judge, or justify these actions. Were the interview to focus directly on rules, then there is a risk that interviewees would report 'textbook-rules' that may be different from the rules they actually use in practice (cf. Carspecken & Cordeiro, 1995)[21]. Therefore, the interviews were centered around a concrete design project the interviewees had carried out recently or were carrying out at the time of the interview. The interviewees were asked to tell about what they did in these projects, triggered by questions that led them along the focal issues of this study. And from there they were brought to formulate the rules they had followed, and to argue the status of those rules, their efficacy, specified for different contexts, and the degree to which these rules are shared among other practitioners. By stating the rules they followed, they made a first step in creating a reflective equilibrium between rules and practice, and by giving arguments, they proceeded towards a wide reflective equilibrium.

The focal issues of the interviews were derived from the theoretical framework constructed in chapter 2. In particular, the processes of framing and reframing, the construction and reduction of alternative forms, the alignment of cognitive and socio-political processes, the management of design spaces, the closing of elements of the design process by constructing nodes, the use of plans of approach, methods and models, and the assessment of the design and the design process, afterwards and along the way, were singled out. At the beginning of the interview series, these issues were operationalized globally and tentatively in interview questions, which were meant to serve as starting points for the exploration of the issues. A question to operationalize framing, for instance, was "what did you do to find out what was going on?", and to operationalize the alignment of cognitive and socio-political processes "how did you gain the commitment of your client for the plan of

[21] This is an actual risk, as became clear in one of the interviews. One consultant showed reluctance to start from a case, since he had written a textbook in which he had stated exactly how one should design organizations. The interviewer insisted, and so the consultant started telling about a concrete project, but exactly following the lines of his book. Reflexive questions could not bring him beyond the rules he had already formulated, so after a while, the normal interview strategy was abandoned. Instead, the interview focused on the making of methods itself, one of the focal issues in this study, for which the textbook could serve as a case.

approach you made?" (see appendix C for the complete list). A more precise operationalization was not possible at the beginning of the interviews, nor was it desirable. In-depth interviews are conversations with the interviewee in which the interviewer tries to find out what the interviewee has to say and what he himself actually wants to know (cf. Kvale, 1996). It is only possible to say what you were looking for when you have already found it[22]. Thus, the description of design practices in chapter 5 is not only a finding, but also the operationalization of the theoretical framework.

3.3.2 Selection of interviewees

Whom should one interview to reconstruct design practices in management consulting? For the selection of interviewees, two main considerations played a role. First, interviewees should be considered excellent consultants by their fellow practitioners. This guarantees to a great extent that they are highly competent practitioners, have internalized the rules of practice, and know how to apply them correctly. It also implies that the rules they follow transcend the idiosyncratic, since their practices are, to use a fashionable term, best practices. And secondly, the total group of interviewees should cover the variety and heterogeneity in the domain. Chapter 4 elaborates the sources of heterogeneity, but anticipating its conclusions, one can say that the group of interviewees should show some variety in working area, consulting firm, and, in so far as this can be assessed in advance, design approach. Table 3.1 gives an overview of the selected interviewees, with pseudonyms[23], the number of nominations they received as 'best overall', 'best in his own field', and 'innovative', the kind of firm they work for[24],

[22] One of the interviewees told me after the interview, paraphrased, 'you seem to know exactly in which aspects of my work you are interested; the interview might have been more efficient if you would have told me beforehand,' to which I could only reply 'I do know what has my interest when I hear it, but I could not have told you without hearing your story.'

[23] The interviewees have been given pseudonyms to conceal their identity. All names have been derived from *The One Best Way*, Robert Kanigel's (1997) biography of Frederick W. Taylor, the world's first management consultant. Only the names are taken. All possible similarities between interviewees and figures from the biography are entirely coincidental.

[24] The qualification 'big national' stands for Dutch consulting firms with hundreds of consultants, and 'big international' for 'Big Five' firms with internationally tens of thousands of consultants. 'National' stands for middle-sized and small Dutch firms, 'international' for US based firms with a medium-sized office in the Netherlands. 'Self-employed' stands for one-man consultancies.

and their academic degree or position[25].

Name	*Noms. Overall*	*Noms. in field*	*Noms. Innovative*	*Firm*	*Academic degree/position*
Adams	22	10	-	International	Prof
Baker	15	11	-	National	Prof
Clark	14	20	-	National	Prof
Dodge	11	14	1	National	Prof
Evans	8	17	1	Self-employed	MA
Fannon	6	7	6	Big national	Prof
Grant	3	10	-	Big international	Prof
Harper	3	4	1	National	Ph.D.
Ingle	3	4	-	National	MA
Johnston	2	5	3	Big national	Prof
Kelly	2	4	-	Self-employed	MA
Lewis	1	6	-	Big national	MA
Mitchell	1	3	-	National	Ph.D.
Nevins	1	3	-	National	MSc
Osborn	1	3	-	Big International	MSc
Parker	-	4	-	Big international	MSc
Quigel	-	4	-	Self-employed	MA
Redfield	-	3	1	National	MA
Sawyer	-	2	1	Big national	Prof
Thompson	-	2	-	Self-employed	MA
Urwick	-	2	-	Big international	Ph.D.
Valentine	-	1	2	National	?
Wright	-	1	2	National	MA
Yates	-	1	-	Big national	Ph.D.

Table 3.1: Overview of the selected interviewees.

The first five interviewees, from Adams to Evans, were selected solely on the number of nominations they received as being 'among the best in a specific area' and as 'among the best in the whole domain'. The number of nominations they received is disproportionately large, which means that they are widely respected in the domain and that their excellence is broadly visible and recognized. They form the exemplary core of the domain and therefore, they were selected for the interviews. It must be noted that they cannot be said to be the five 'best' consultants in the country. The relation between the number of nominations and the consultants' excellence is not a direct one, because the reputation of the consultant is an intervening variable. Being excellent contributes to reputation, of course, but visibility in books, boards, courses, and the media also plays a role. It is probably no coincidence that six of the seven most-nominated consultants are part-time university-professors and teach

[25] 'MA' stands for the Dutch 'drs.', 'MSc' for 'ir', 'Ph.D.' for 'dr'. Almost all Ph.D.'s also have an MA or MSc, and most professors have a Ph.D. as well, but this is not specified in the table, because this could give away their identity.

in post-graduate courses for consultants. No doubt, their excellence has played a role in their appointment as a professor, but occupying a chair and writing books also enhances their visibility and excellent reputation. To take the effect of the reputations into account, the respondents have been asked to distinguish between nominees in their own field whom they know personally, and nominees in the whole domain whom they do not have to know themselves. Nominations in the first category can serve as a check on the second category, where reputations play a more important role. The differences in ranking show in the table, but the same people still form the top five[26].

The top-five of nominated consultants do not work for big national or international firms. But because these firms play an important role in the domain (see chapter 4), the two most-nominated consultants of each big firm were selected. Sawyer, Parker, Lewis, Johnston, and especially Grant and Fannon were selected for this reason. Osborn worked for another big international firm, which was not included in the address list of the survey, but because he received nominations and his firm plays an important role in the field, he was also selected.

For the selection of the other interviewees, several considerations played a role. A bottom-line consideration applied with only one exception is that consultants should have received at least two nominations, to exclude the possibility that they are only nominated by themselves. A first consideration for actually selecting consultants is a recommendation in the survey for interesting reasons. Mitchell, Nevins, Redfield, and Urwick were selected in this way, because they were said to be creative in their methods and in their use of theory in practice. Others, notably Valentine

[26] The differences in ranking within the field and overall were notable in the case of three nominated, but not selected consultants. One received 8 nominations as best overall and only 1 as best in the field, another 9 and 3 respectively, and a third 12 and 5 respectively. Apparently, they were mainly nominated for their reputation. This may be explained by the fact that the first had been a member of government, while the other two had headed big consulting firms, which enhanced their visibility and reputation, but the fact that they did managerial rather than active consulting jobs, reduced the number of respondents that personally knew them to be excellent consultants. An additional explanation may be that the first and second consultant worked for firms that were barely included in the address-list used in the survey. The main reason not to approach these three consultants for an interview was that, in their positions, they were less engaged in active consulting, which would have complicated the interview design, in which a recent case stands central.

and Wright, were selected because they were said to be innovative[27]. And furthermore, a spread in working area, consulting firm, and design approach played a role. The firm and working area could be assessed on the basis of the survey data and some additional information from the Internet and publications. To assess the coverage of approaches, three experienced consultants with a good overview of the field were asked whether important 'schools' or 'currents' were missing.

3.3.3 Process

The interviews were conducted between the fall of 1999 and the spring of 2000. The construction of the interview design started early in the research project. As part of the development of a central research question and an overall research design, concrete interview questions were constructed to make the central topic of this study concrete. The actual development of the interview design took place after a first elaboration of the theoretical framework and the analysis of the survey. In 1998, an interview protocol was developed, which was pretested with two management consultants. These interviews were taped, transcribed, and analyzed, resulting in the articulation of loosely coupled design rules. Based on these experiences, and after discussing them with an external interviewing expert, the interview protocol was altered. The issues were not changed, but a further focus was brought to the questions: on the design process rather than on the content of the design, and on the use and construction of methodological resources in and for the design process – in particular plans of approach and design methods. Concretely, this implied going deeper into these issues during the interviews, while placing others in the periphery and 'extra time' of the interview.

In the summer of 1999, three consultants were interviewed with the renewed interview protocol. These interviews, with Thompson, Wright, and Yates, were try-outs of the interview, but the data is treated as equal to the data from later interviews. They only differed from other

[27] It is noteworthy that most innovative consultants are also nominated as being among the best. Apparently, innovative consultants are also considered good consultants (see also chapter 4). For this reason, the results of the interviews with innovative consultants are not separated from the other results. Had the innovative consultants formed a marginal group of outcasts, breaking the rules the mainstream takes for granted, then a separate treatment would have been justified.

interviews in that they took longer (two interviews with Thompson totaled six hours) and that the interviewees were asked to evaluate the interviews afterwards and to give suggestions for improvement. The interviews were taped, transcribed and analyzed thoroughly, and the results were discussed with the supervisors of this study and with the interviewees. These interviews did not lead to a change in the focal issues, but the experience made it possible to become more effective in the interview and more efficient in the analysis.

The selected consultants were sent a letter in which they were asked for an interview. That letter also explained the topic of the study and the reason why they were approached, which included the remark that they were considered to be among the best consultants in the country (see appendix C for the letter). After about a week the consultants were called by telephone to make an appointment. In only three cases did this procedure not lead to an interview. Two consultants were willing to cooperate, but did not have the time for it, and another had left for the USA. With the other consultants, an appointment was made. For two of them, it took some extra persuasion on the telephone, while two others called or mailed themselves for an appointment.

A full interview normally took about one-and-a-half hours. In some cases, the interviewees were more busy than they thought they would be, which shortened these interviews to about one hour, while others had more time than expected, which made it possible to extend the interviews to more than two hours. In preparation, the interviewees were sent a one-page description of the focus of the interviews, and they were asked to think about a case to discuss. As elaborated above, the interviews were centered around concrete cases, on which consultants were encouraged to reflect. The interview questions concentrated on the focal issues that were derived from the theoretical framework and on the formulation and argumentation of rules. All issues were covered in the interviews, but they were not used to enforce a rigid structure on it. In general, the interview followed the flow of the design process as the interviewees told it, and the focal issues were addressed at appropriate moments in the interview. In-depth interviews are not only meant to get answers to the questions posed, but also to hear what more the interviewees have to tell, and to enhance the interviewer's insight in the matter (cf. Kvale, 1996).

The interviews were taped, and the first twelve interviews were summarized in a report. These reports also contained analytical comments and preliminary conclusions. On the basis of these reports and their discussion with the supervisors of this study, further interviews could be focused and sharpened. Making these reports also made it possible to record progressive insight into the matter (cf. Yin, 1994; Van Aken, 1994). After twelve reports, the analyses strongly converged. Therefore, the time-consuming task of making reports was abandoned. The twelve remaining tapes were transcribed by a professional typist, and only remarkable deviations from earlier conclusions were highlighted in comments. After about twenty interviews, these comments also converged, so when the planned series of twenty-four interviews was concluded, no extra interviews were added.

To make a further step in the analysis of the hundreds of pages of data, the interviews were coded (cf. Miles & Huberman, 1994). The codes could not just be derived from the theoretical framework, nor were they induced exclusively from the data. A long list of codes, or topics, was created by going back-and-forth between the analytical comments and the theoretical framework (see appendix D). Subsequently, all interview reports and transcriptions were read anew and coded with these topics. This coding process also involved a going back-and-forth between topics and data, which led to the splitting of some topics and the combination of others. The resulting table, containing information about which interviewees had said something about which topics, was used as the basis for the writing process. For every topic or cluster of topics, the relevant interview fragments were collected, and subsequently, a piece of text was written that reflected the rules of practice concerning that topic. In that way, the reconstruction of design practices was built up paragraph by paragraph. This writing process also involved a ‘conversation’ with the data, as for some topics, no rules could be gleaned from the data, while for others, the rules had already been covered in a previous section. In short, one can say that the going back-and-forth between data and articulated rules has been constitutive for the reconstruction of design practices from the beginning to the end.

To transfer both the insider’s perspective and the findings of this study to the reader, the presentation in writing is important (Bate, 1997). On the one hand, it requires thick description to convey the insider’s perspective,

with attention to context, the mundaneity and everydayness of consulting life, and the polyphonic voices of the interviewed consultants. On the other hand, it requires the visible hand of the writer to structure the reconstructions and to lead the text to normative points about designing. In chapter 5, which presents the in-depth interviews, a combination is sought. The examples and quotes are to transfer the insider's perspective, but the main line and the points of the description are constructed by the writer and not by the interviewed consultants.

4

Management consulting

This chapter portrays and characterizes the domain of this study, management consulting, explores management consulting practices, and tests and elaborates the background diagnosis of this study, i.e. the existence of a gap between practice and phase-model methodology. The portrayal and characterization is based on management consulting literature, which is discussed in section 4.1, and on the first part of survey conducted among management consultants, which is elaborated in 4.2. The exploration of consulting practices and the testing of the background diagnosis are based on the second part of the survey, which is discussed in 4.3.

4.1 Characterization of management consulting

To understand design practices in management consulting, it is important that one first understands the peculiarities of the domain. Therefore, this section gives an introduction to the peculiarities of management consulting. Special attention will be given to the professionalization and standardization in the domain, since, as argued in chapter 2, these influence the status and possible role of design methodology in the domain.

4.1.1 An introduction to management consulting

What is management consulting? Daniëls (1968) defines management consulting commonsensically, as telling managers what is good for them. The International Council of Management Consulting Institutes uses “the provision of independent advice and assistance of management to clients

with management responsibilities" as a definition (ICMCI, 1999, p.2). They stress the consultant's advisory role and independence. Greiner and Metzger (1983, p.7) give a more extensive definition: "management consulting is an advisory service contracted for and provided to organizations by specially trained and qualified persons, who assist, in an objective and independent manner, the client organization to identify management problems, analyze such problems, and help, when requested, in the implementation of solutions." This definition emphasizes, next to the independence and advisory role of the consultant, the special qualifications of the providers of the advice, and specifies the consulting work as the identification and analysis of problems and, in some situations, the implementation of solutions.

Frederick W. Taylor (1856-1915) was the first to make management consulting his full-time occupation (Twijnstra & Keuning, 1988; Kanigel, 1997; ICMCI, 1999). From 1893 to 1898, he advertised himself as 'consulting engineer, systematizing shop management and manufacturing costs a specialty' (Kanigel, 1997). During these years, Taylor traveled along the industrial cities of the USA, living in hotels and doing all kinds of jobs in various industries, for a daily fee of 35 to 40 dollars[28]. Mostly, he was hired as an outside expert to change inefficient work practices on the shop floor or in the back office. He implemented, in different contexts, elements of what would later become known as 'scientific management' (Taylor, 1911). According to Kanigel (1997), there were people before Taylor who provided management consulting services, but they did not call themselves consultants. In the 1870s, for instance, there were so-called 'Yankee contractors', who temporally took over the production of an industrial company. They made new tools, changed work practices and reorganized the labor force, all in order to lower production costs (See, 1880). These Yankee contractors had a temporary line function in an organization, however, and would bear more resemblance to contemporary interim-managers than to management consultants. Taylor had a purely advisory role, although often not to his own satisfaction. "Always he had a new client to please, typically someone with his own large ego, unwilling either to cede him all the authority he requested or reach down in his pockets enough to suit his grand visions" (Kanigel, 1997, p.263).

[28] This would be around 1000 dollars a day in today's money (Kanigel, 1997, p. 262).

Since the 1890s, management consulting has grown enormously, especially during the last decade. In 1988, about 100,000 people worldwide were estimated to work full-time as management consultants (The Economist, 1988). In 1998, the top 3 consulting firms alone already employed more than a 100,000 consultants (Financial Times, 2000). In 1999, the total revenue of the top 20 consultancies reached 43.5 billion dollars, a more than threefold increase since the beginning of the decade (Financial Times, 2000). Most of this growth has been realized in the USA, which accommodates the bulk of management consultants, but growth in Europe has also been considerable. In the Netherlands, which has a relatively high consultant density, the number of management consultants has grown from 21 in 1947 (Hellema & Marsman, 1997), to about 2100 in 1989 (De Jong & Tordoir, 1989), and about 4000 in 1996 (Management Consultant, 1996). A recent estimate of the Ooa, the national association of management consultants, is that at the turn of the century, approximately 10,000 management consultants are active in the Netherlands[29]. This last figure, if correct, would mean that almost 1 in every 1500 Dutchmen works as a management consultant.

How can this growth be explained? To answer this question, one can turn to the clients of consulting services. Why do they hire consultants, and why do they hire them more and more? Literature gives official and unofficial reasons. Official reasons have to do with the need for specially qualified and trained experts, and for independent and objective advice, elements also mentioned in Greiner and Metzger's (1983) consulting definition. Unofficial reasons have to do with managers' political games in organizations and their perceived insecurity. As an official reason, the client's lack of knowledge and expertise is often mentioned (Twijnstra & Keuning, 1988; Berry & Oakley, 1994; Kubr, 1996; Kieser, 1998). Management consultancies are 'knowledge intensive firms' and consultants are 'knowledge workers', who develop and transfer knowledge to organizations (Alvesson, 1995). They study state-of-the-art management theory and best practices in all kinds of contexts, and

[29] This number is mentioned on the website of the Ooa, the Dutch association of management consultants. Neither this source, nor the source of the number of consultants in 1996 mentions how they came to their estimates. Therefore, the validity of these numbers cannot be assessed.

develop methods, models, and techniques to implement these practices in their clients' organizations. Based on their expertise, they can assist managers in framing complicated problem situations, in designing solutions, and in implementing these solutions in order to effect changes. The independence, objectivity, and outsider's view are also important official reasons to hire consultants. They are not blinded by long-entrenched practices in organizations, nor are they embroiled in local political games. They can form an 'objective' opinion and offer a fresh perspective on what is going on in an organization.

Reasons that have to do with power games within organizations often remain hidden. Consultants may be hired to 'objectify' an opinion a manager already has, in order to persuade employees, shareholders, or financiers of the organization of its correctness (Twijnstra & Keuning, 1988; Kubr, 1996). Consultants may also be used to further their clients' careers (Jackall, 1988; Kieser, 1998). Careers benefit highly from being seen as an agent, someone capable of initiating and realizing improvements (see also section 2.2.1). Consultants can help managers by providing the newest management concepts and best available methods, by assisting them to make their project into a success, and by making them visible to the shareholders or the top of the organization. The pomp and circumstance of well-named projects, great stories of brighter futures, grand meetings visited by important people, thick reports with covers of respected consultancies, and the presence of well-dressed and well-paid consultants, may give top-managers and shareholders the idea that something important is going on, and that the manager who is responsible for all this must be capable indeed.

Other unofficial reasons have to do with managers' uncertainty. Maister (1993) describes clients as feeling insecure, threatened, taking a personal risk, impatient, worried, exposed, ignorant, skeptical, concerned, and suspicious. They feel uncertain about what is going on in their organization, about what they should do to improve the situation, and about what this will do to them personally. Consultants are said to make use of this by tricking insecure managers into the latest management fashion time and again. They convince them that these fashions can bring the solution to all their problems (Huczynski, 1993; Kieser, 1997; Staute, 1998). Management fashions, such as BPR or TQM, are seemingly simple panaceas for organizational problems, mostly persuasively presented in

books, articles, and lectures by so-called management gurus (Clark & Salaman, 1996, 1998; Kieser, 1997). Management fashions are typically too generic and too open for different interpretations to be implemented right away. Therefore, consultants are needed as intermediaries, 'commodifyers' (Fincham, 1995) or 'translators' (Czarniawska & Sevón, 1996) between the management fashion and the client organization. They provide the expertise, methods, and techniques to tailor the concept to the situation and to make the implementation successful. Somewhat maliciously, consultants can be said to make a living as hitchhikers on the continuous flow of new management hypes (Benders et al., 1998).

Consultancy textbooks emphasize official reasons, while the unofficial reasons are mostly stressed in critical management discourse. Emphasizing one kind of reason as the real reason leads to caricaturization of consultants and clients, though. Consultants are not only independent and objective experts, or just hucksters of management fashions, or puppets on managerial strings[30]. Nor are clients always hopelessly insecure and waiting for salvation by consultants, or narrowly fixated on their careers. Client-consultant relations are multifaceted, with cognitive as well as socio-political dimensions, with mutual certainties and uncertainties (Sturdy, 1997; Fincham, 2000), and presumably with a mixture of official and unofficial reasons for both parties to engage in their relationship.

These reasons give an indication why managers hire consultants, but why

[30] This double image of management consultants and management consulting also occurs in the popular press. On the one hand, consultants are portrayed as smart and influential professionals who advise important people and receive the credit for reorganizing organizations. On the other hand, they are depicted as very costly charlatans who fill company drawers with lengthy reports that remain without consequences. The negative image reads, for instance, in a headline like 'The unbearable lightness of the management consultant' (De Volkskrant, 1999), or a cartoon accompanying another article, in which a consultant, apparently working for the consulting firm 'Sulphur', is depicted as Satan himself (Tubantia, 1998). The heroic image of consultants shows up, for instance, in articles concerning the forced resignation of the chair of the Dutch socialist party in De Volkskrant (2000). Below the article with the reactions of the chair herself and the prime minister, stood a personal 'profile', not of the resigning chair, but of the consultant who had written the report about her malfunctioning in the party board. In this article, the consultant was portrayed as open, tough, and influencial, and in addition, it was mentioned that his name was pronounced with deep respect at the ministry where he recently did a job.

did they hire them more and more over the last century, and especially so in the last decade? According to Bower (1982), managers increasingly hire consultants because of the apparent value of their advice. "Although pride still keeps some managers from retaining consultants, such managers are an endangered species, and quality of consulting work […] is gradually making them extinct," (Bower, 1982, p.5). Although Bower's explanation may be flattering for consultants, there is probably more to it. Consulting has grown, for instance, because consultancies have succeeded in continuously opening up new fields of consulting. Kipping (2001) describes this development in three waves. The first wave contains the time-and-motion studies and the implementation of scientific management at the beginning of the 20th century. The second wave encompasses strategy and organizational structure design. And the most recent wave concerns ICT-related fields, like knowledge management, SAP implementation, and e-commerce, in which much of the recent growth in consulting has been realized (Financial Times, 2000).

The expansion of management consulting may partly be explained by the growing complexity of managerial work over the last century, which has led to more specialization in management and thus to more potential fields for management consulting. It also has to do with management guru platitudes like 'change is the only constant', 'innovation is the key to success', 'knowledge is the key production factor', and 'things are more complex than they used to be' (e.g. Nonaka & Takeuchi, 1995; Tushman & O'Reilly, 1997). In so far as these developments are true, they increase the need of managers for advice and expertise. But, as said above, these phrases are also part of guru rhetoric, used to underpin a constant stream of management fashions. Since 1982, when Peters and Waterman published their best-selling *In Search of Excellence*, the number of fads has increased, while their life-cycles have shortened (Pascale, 1990; Grint, 1997). The consultancy boom of the 1990s is said to have been fostered considerably by this increase of fads, especially by BPR, core competencies, and knowledge management (Financial Times, 1995, 2000).

Consultants also profit in another way from their accomplishments. The downsizing operations in the 1980s and the retreat of companies to their core competencies in the 1990s have stimulated consulting. The 'outsourcing' of staff activities and non-core activities has diminished the

availability of expertise within companies. Managers now turn to external consultancies for knowledge and skills they used to have in-house. Besides, the wave of consolidations in the private and the public sector in the form of mergers, takeovers, and strategic alliances, which is partly a result of the massive outsourcing, has also generated a lot of consulting work (Financial Times, 2000).

4.1.2 Professionalization and standardization

Management consulting is a heterogeneous business. It comprises a broad range of specialisms, from time-and-motion studies to e-commerce, which are offered by a wide variety of consulting firms. There are one-man businesses, while the world's largest firm employs over 50,000 consultants. There are specialized firms, operating in niche markets, and firms that offer a whole range of consulting services. There are firms that operate locally or nationally, and firms that operate worldwide. There are firms with a long history, and firms that just started. There are firms that have always been in management consulting, and firms that entered management consulting from other fields, such as accountancy and ICT, or from industry, as an outsourced internal consulting department. And the field changes constantly. Many established consulting firms are involved in the formation of strategic alliances, mergers, and take-overs. Big consulting firms grow bigger every year, and because of the low entry barriers (Clark, 1995) - "the only real requirement for being a consultant is six dollars for business cards" (Gilley & Eggland, 1989, p.180) - new consulting firms are established every day, resulting in a growing number of small firms.

The increased heterogeneity of the management consulting business has reduced its transparency, for clients and for consultants themselves. Which consultancy is best for which kind of job? Who is good and who is a charlatan? Who is a 'real' management consultant and who is just providing management services, i.e. doing a job as 'hired extra capacity'? Consulting firms try to enhance transparency for clients through a better marketing of their services (Kaas & Schade, 1995; Kohr, 2000). Furthermore, professionalization activities are carried out to effectuate a demarcation of competent consultants from non-competent consultants and of 'real' management consultants from all other kinds of people who provide services to organizations as external advisors. These

professionalization activities include postgraduate education, certification of consultants, ISO certification of consulting firms, the initiation of intervision groups, the establishment of assignment evaluation methods, the development of a shared body of knowledge and the creation of a code of conduct. In the Netherlands, many of these activities have been initiated or stimulated by the association of management consultants (the Ooa) and the council of management consultancies (the ROA)[31]. By participating in these activities, ROA-firms and Ooa-members can show their colleagues and clients that their way of working meets certain quality standards and that they are professional management consultants, thus distancing themselves from amateurs and snake-oil-salesmen.

The International Council of Management Consulting Institutes, the umbrella organization of national consulting organizations, states that management consulting is a relatively young and fast-growing profession (ICMCI, 1999). They consider management consulting a profession like any other, only somewhat younger, and if it is not full-grown yet, it is on its way to maturity. But is it? Several authors have compared management consulting with well-established professions, in particular the medical or legal profession, and concluded that management consulting cannot claim an equal professional status, and that some 'shortcomings' may be too fundamental to overcome (Janssen et al., 1992; Zeilstra, 1994; Kieser, 1998; Van Baalen, 2000). A fully developed profession has successfully established jurisdiction over an area of working life, controlling knowledge and its application within that area (Abbot, 1988). Practice is restricted to a well-demarcated group of practitioners, which is protected by government (Johnson, 1972). Candidate-practitioners are to go through uniform professional education and receive a certification before they are allowed to practice. A branch association, of which membership is obligatory, safeguards and improves the competence of its members and maintains the integrity of their conduct (Carr-Saunders & Wilsons, 1933; Wilensky, 1964; Hughes, 1963; Mok, 1978).

In the field of management consulting, jurisdiction is claimed, professional training, certificates, branch organizations with regulatory

[31] In other countries, similar organizations are active, like the Institute of Management Consulting in the USA, the Management Consultancies Association in the UK, and the Bundesverband Deutscher Unternehmensberater in Germany.

power, bodies of knowledge, and codes of conduct exist. But management consulting does not measure up to the ideal, or idealized (Abbott, 1988) picture of a full profession as sketched above. In management consulting, the work over which the profession is supposed to establish its jurisdiction is open to successful counter-claims and invasions by other professions or occupational groups such as managers, accountants, and ICT-experts. There is no obligation to follow a professional training, to become a member of a branch organization, or to acquire certification. Nonparticipation in professionalization activities is not officially sanctioned by government. In the Netherlands, most consultants are not a member of the Ooa[32], and some of the best-known consultancy firms, such as McKinsey and The Boston Consulting Group, are not a member of the ROA[33]. Furthermore, the status of the body of knowledge is considered too weak as a basis for uniform professional training, accreditation, and the evaluation of competent behavior (Kieser, 1998; Fincham, 1999). Especially faddish management concepts, which play an important role in management consulting, are considered too flimsy for these purposes. Despite attempts by branch organizations (ICMCI, 1999), there is no consensus on what should be in the shared body of knowledge of management consultants or how it should be codified (Kubr, 1996).

The professional status of management consulting is claimed by some and questioned by others, but for many consultants, the relevance of the debate seems to be overtaken by the apparent success of the consulting industry. Strong consulting firms have emerged that do not really need branch organizations and their bodies of knowledge, education, certifications, and codes of conduct to convince clients of their employees' competence. They may carry out activities to improve the competence of their employees and the quality of their work, similar to professionalization activities, but then on a firm level rather than on a professional level. Some firms have corporate handbooks with, among

[32] The relative number of Ooa members is on the decline. Just after World War II, all management consultants were members of the Ooa (Hellema & Marsman, 1997). Presently, the Ooa has almost 900 full members, while the total number of management consultants is estimated at 10,000 (Ooa website). It remains a question, however, whether these non-members would all be considered 'real' management consultants by Ooa members.

[33] The same goes for Germany (Kieser, 1998) and the UK (Schlegelmilch et al., 1992), and probably for many more countries.

other things, core values and standard operating procedures for formulating tenders or phasing a project. Some have established courses or 'corporate universities' to train their consultants, and have developed databases or expert centers to provide them with expertise (Reimus, 1996). As competition among consulting firms intensifies (Jagersma, 1995; Kaas & Schade, 1995), the willingness to share knowledge on a professional level, if that willingness ever existed, declines further, and the strategic importance of knowledge as a source of competitive advantage grows. 'Knowledge management' is then the term used to denote the kinds of activities that would have been called professionalization activities if they were carried out on a professional level (Post & Weggeman, 1997; Werr, 1998).

An interesting view on knowledge management in consulting firms has been developed by Hansen, Nohria, and Tierney (1999), who distinguish between two knowledge management strategies, viz. a personalization strategy and a codification strategy. In a personalization strategy, individual consultants are the focal point. Their knowledge and skills are developed, and the sharing of knowledge among consultants is facilitated. In a codification strategy, the knowledge itself is the focal point. It is extracted from experts, codified, stored, disseminated, and reused as often as possible in projects. Which strategy is best depends on what kind of consultancy one chooses to be (Hansen et al., 1999). The personalization strategy is thought most effective for firms that want to offer customized solutions for unique problems, for which they need highly-qualified consultants and ask high fees. A codification strategy is thought best for firms that want to offer reliable, standardized solutions for standard problems, for which they can employ inexperienced, but relatively cheap consultants. For firms with a codification strategy, the standardization of consulting competencies is a key element. Standardized skills, standardized methods, and standardized models open up the opportunity for doing large projects, since they are powerful coordination mechanisms (Mintzberg, 1979). They also facilitate rapid growth, since one can put inexperienced consultants to work very quickly. Standardization also gives internationally operating firms an advantage in their work for multinational companies, since they can provide uniform methods or solutions worldwide, while employing consultants from local branch offices (Ganzevoort & Olthof, 1992). For firms with a personalization strategy, standardizing consulting practices seems not to

be an important issue. It might even be counterproductive, since it could blind them for the uniqueness of problem situations, and dealing with uniqueness is their 'unique selling point'. Limited standardization may be useful though. Some shared concepts, models, and methods can enhance the communication and the exchange of knowledge. And standardizing some of the organizational aspects of consulting, such as the index of a document with terms of reference, enhances efficiency. But standardization seems to be in the margin of their consulting work, while for firms with a codification strategy, it is at the core.

4.2 Structures in management consulting

Management consulting is a heterogeneous, fractured, and dynamic domain. A variety in working areas, organizational settings, bodies of knowledge, and standardization efforts exists, which has not been unified and homogenized successfully by professionalization activities. As far as methodology is concerned, this may imply that the management consulting domain is divided into fairly isolated subpractices, bounded by working areas, consulting firms, or schools of thought, each with their own set of rules of practice. To investigate the structures in the domain and in particular the possible division along the lines of fields, firms, and schools, the results of the first part of the survey among management consultants will be used.

In this part of the survey, respondents were asked to nominate a maximum of three consultants whom they know personally and whom they consider to be among the best in their working area. They were asked to motivate their choice and to specify what they regarded as their working area. Besides, they were asked to name a maximum of three consultants whom they consider among the best in the whole domain of management consulting, and one whom they regard as the most innovative. These data were primarily meant to select consultants for the in-depth interviews of this study, but will also be used to get an indication of structures of fields, firms, and schools of thought in the domain.

4.2.1 Fields

To what extent is management consulting divided along the lines of different fields of consulting? In the survey, the respondents were asked

to mention the fields of consulting in which they are active. A commonly used distinction in nine fields was given, viz. strategy, organizational change, marketing, administrative organization, human resource management, training & education, logistics, quality management, and information technology. These categories cover most of the consulting work and correspond reasonably well with categories consultants use themselves to label their work and to organize professionally[34]. Respondents were also given room to write down other fields of consulting in which they are active. About a quarter of the respondents used this opportunity to mention fields like business ethics, conflict management, financial management, innovation, purchase management, environmental management, and project-management. However, none of these areas was mentioned more than 4 times, and only 4% of the respondents did not mark any of the given categories. Apparently, the given fields cover most of management consulting. Figure 4.1 shows in percentages how many respondents considered the respective fields of consulting as their working area.

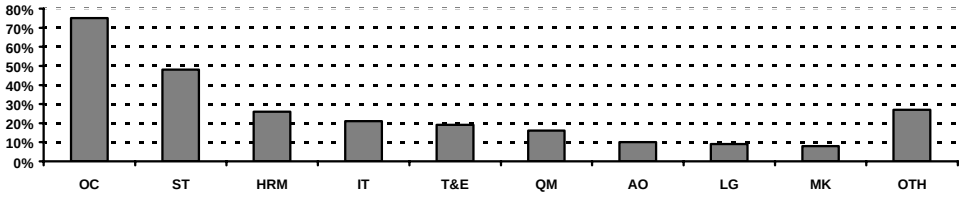

Figure 4.1: Fields of consulting, with percentages of respondents that consider them to be their working area. [OC = organizational change, ST = strategy, HRM = human resource management, IT = information technology, T&E = training & education, QM = quality management, AO = administrative organization, LG = logistics, MK = marketing, OTH = other fields of consulting]

Organizational change and strategy are mentioned most often, by 75% and almost 50% of the respondents respectively, while human resource management, information technology, training & education, and quality management are mentioned by about 20% of the respondents, and administrative organization, logistics, and marketing least often, by approximately 10%. Most respondents marked more than one field of consulting. Less than 20% of the consultants marked only one field, more than 60% marked two or three fields, and some marked as many as six. If

[34] For instance, quality consultants and training & education consultants have their own national associations and their own journals.

consultants mark several fields, then a relation between those fields can be assumed. The nature of this relation may differ from case to case. It may be that consultants carry out assignments in both fields, or have done so in the course of their career. It may be that consultants' assignments normally have elements of both fields in them, or that their specialism lies on the intersection of both fields. In any case, consultants who mark several fields of consulting form a link between those fields. If such a link occurs only a few times, it may be due to a few consultants' odd careers or specialisms, but if it occurs more often, a structural relation can be inferred.

The strength of the relations between consulting areas can be measured in two ways: by calculating overlap percentages and by calculating Jaccard's measures (Sneath & Sokal, 1973; Rip & Courtial, 1984; Nedeva et al., 1996). Table 4.1 shows the overlap percentages of the different fields of consulting. The table should be read as follows: x% of the respondents who are active in the consulting field mentioned in the row are also active in the field mentioned in the column. Consider, for instance, the overlap percentages of the fields of organizational change and strategy. Of the consultants who are active in organizational change, 50% are also active in the field of strategy, while 79% of the consultants who are active in strategy are also active in the field of organizational change. This shows that the smaller field of strategy is largely included in organizational change, while half of organizational change lies outside strategy.

	OC	*ST*	*HRM*	*IT*	*T&E*	*QM*	*AO*	*LG*	*MK*	*OTH*
Organizational change		50%	29%	20%	22%	18%	12%	8%	7%	26%
Strategy	79%		9%	19%	18%	15%	12%	9%	16%	23%
Human resource management	84%	48%		11%	37%	14%	7%	1%	3%	19%
Information technology	71%	45%	14%		10%	26%	28%	12%	3%	21%
Training & education	87%	44%	50%	11%		28%	4%	2%	4%	13%
Quality management	83%	43%	22%	33%	33%		9%	13%	7%	13%
Administrative organization	93%	43%	18%	57%	7%	14%		11%	4%	32%
Logistics	65%	46%	4%	27%	4%	23%	12%		19%	35%
Marketing	67%	100%	10%	10%	10%	14%	5%	24%		24%

Table 4.1: Overlap percentages of fields of consulting.

An alternative way to express the strength of a relation between two fields of consulting is to calculate Jaccard's measures. Table 4.2 shows

Jaccard's measure for each relation. The formula for this measure is:

$$J_{xy} = \frac{C_{xy}}{(C_x + C_y - C_{xy})}$$

C_x is the number of consultants with X as working area, C_y is the number of consultants with Y as working area, and C_{xy} is the number of consultants that are active in both X and Y. J_{xy} is a measure for the strength of the relation between X and Y. If $J_{xy}=0$, there is no overlap, and if $J_{xy}=1$, X and Y coincide. Jaccard's measure has the advantage over the overlap percentages that it expresses the strength of a relation in only one number. A disadvantage is that, if two areas differ considerably in size, like organizational change and marketing, the measure shows a weak relationship, since the overlapping area is then small compared to the number of consultants that cover both areas. Relations between a big and a small area show better in the overlap percentages. Jaccard's measure of the relation between organizational change and marketing is only 0.06, which indicates a weak relationship, while table 4.1 explicates that marketing is still for 67% included in organizational change.

Jaccard's measure	***OC***	***ST***	***HRM***	***IT***	***T&E***	***QM***	***AO***	***LG***	***MK***
Organizational change		0.44	0.27	0.18	0.22	0.17	0.12	0.08	0.06
Strategy			0.20	0.16	0.15	0.12	0.08	0.08	0.16
Human resource management				0.07	0.27	0.09	0.05	0.01	0.02
Information technology					0.06	0.17	0.23	0.09	0.04
Training & education						0.18	0.03	0.01	0.03
Quality management							0.06	0.09	0.05
Administrative organization								0.06	0.02
Logistics									0.12
Marketing									

Table 4.2: Jaccard's measure of fields of consulting.

As the data show, there are no strict dividing lines between consulting areas. All fields are linked to all other fields. But the intensity of the links differs greatly. If a threshold value of 0.10 in Jaccard's measure is introduced, which roughly compares to a mutual overlap of 15%, then 16 links remain. These relations are pictured in figure 4.2, which gives a map of management consulting (cf. Rip & Courtial, 1983). The little grey circles represent the fields. The thickness of each line stands for the strength of a relationship between fields. And the place of the fields on

the big concentric circles represents the size of the fields, in percentages of the respondents that have marked them (see also figure 4.1).

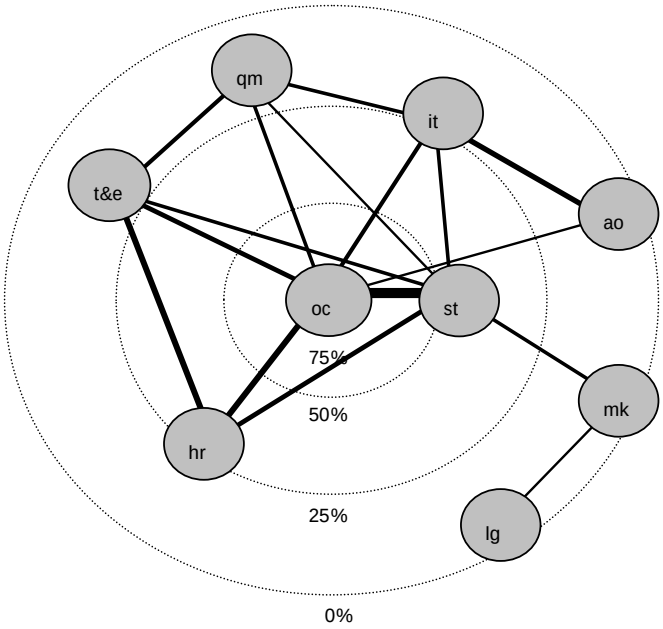

Figure 4.2: A map of management consulting [OC = organizational change, ST = strategy, HR = human resource management, IT = information technology, T&E = training & education, QM = quality management, AO = administrative organization, LG = logistics, MK = marketing].

Organizational change can be considered the central area of management consulting. Three quarters of the respondents call it their working area, and it has strong links with most other fields of consulting. Only the link with marketing and logistics is relatively weak, but as table 4.1 shows, still about two thirds of the marketing and logistics consultants are also involved in organizational change. For the other areas, the percentage is even higher. Strategy also has a central position, although to a much lesser extent than organizational change. About half of the respondents are involved in strategy, which goes for consultants in all areas. Marketing consultants are an exception, since they are all involved in strategy. The central position of organizational change means that most consultancy work, in all areas, is aimed at effectuating changes in organizations. Apparently, not many consultants make analyses or designs without the purpose of change. Organizational change is not so much a specialism, but a field of competence that pervades all management consulting. To some extent, the same is true for strategy. Although strategy consulting

may be a specialism of some consultants, many consulting projects in other areas also have strategic components.

Administrative organization, information technology, quality management, training & education, and human resource management are linked to each other in the following 'chain': AO-IT-QM-T&E-HRM. The other two fields, marketing and logistics, are linked to each other, but are separated from the other fields in the chain. An explanation of this structure of the relations remains somewhat speculative. Part of it may be that the segmentation of the consulting market does not run parallel to the segmentation in disciplines that is used in the survey, and that many 'consulting products' cover adjacent fields in the chain. To give some recent popular consulting products as examples: supply chain management covers both marketing and logistics, BPR includes both the administrative organization and information technology, and empowerment comprises both human resource management and training & education.

4.2.2 Firms

To what extent is management consulting divided along the lines of different consulting firms? In the survey, the respondents were asked to nominate consultants whom they know and consider among the best in their own field of consulting, and to nominate consultants whom they consider among the best in the whole domain. They were also asked to mention their firm and the firm of the people they nominated. The comparison of these two gives an idea of the parochialness or cosmopolitanism of the respondents. Parochialness means that consultants predominantly know and value consultants within their own firm, and that they do not look across the borders of their organization. Cosmopolitanism means that consultants are more profession-oriented than firm-oriented, and know and value consultants in the whole domain.

In table 4.3, the nomination behavior of respondents of the five largest 'responding' firms is summarized. BI1 is one of the international 'Big Five' consulting firms. BN1 and BN2 are big national firms, N1 and N2 middle-sized national firms. In the columns is stated how respondents from these firms nominated, within their own field and in the whole domain. For instance, BI1 respondents gave 75% of their nomination to

consultants from their own firm, 4% to BN1 consultants, 2% to BN2 consultants, etc. In the lower part of the table, firms are mentioned that have little or no nominators, but relatively many nominees. BI2 is another 'Big Five' firm. I1 and I2 are international consulting firms, and N3 is a national consulting firm. SC is not a firm, but stands for self-employed consultant, denoting the one-man consultancies.

		Nominating firms									
		BI1	***BN1***	***BN2***	***N1***	***N2***	***BI1***	***BN1***	***BN2***	***N1***	***N2***
		Best within own field					*Best overall*				
Nominated firms	***BI1***	75%	4%	2%	-	-	36%	5%	-	-	-
	BN1	-	67%	5%	-	-	5%	38%	3%	-	-
	BN2	2%	2%	44%	-	-	9%	-	50%	-	-
	N1	-	-	-	44%	-	-	-	-	25%	-
	N2	4%	6%	5%	11%	50%	-	11%	3%	12%	25%
	BI2	-	-	4%	-	-	9%	-	-	-	-
	I1	-	-	-	-	-	5%	8%	-	-	-
	I2	2%	4%	2%	-	10%	5%	11%	11%	13%	25%
	N3	7%	4%	2%	11%	-	9%	19%	6%	50%	8%
	SC	-	4%	18%	17%	10%	-	-	6%	-	8%
	OTH	18%	9%	18%	17%	30%	21%	8%	15%	-	34%
	TOT	56 100%	48 100%	58 100%	18 100%	10 100%	22 100%	37 100%	36 100%	8 100%	12 100%

Table 4.3: Nominations of 'best consultants' on a firm level.

The data show a high degree of parochialness within the several fields of consulting, especially at BI1 and BN1, where respectively 75% and 67% of the nominations are internal. If the consulting domain as a whole is considered, the parochialness is somewhat less, probably due to the fact that nominees here are more often chosen because of their general reputation and less because respondents really know them to be good. The data also show that in general, big firms are more parochial than middle-sized firms. Consultants in big consultancies have only a limited view of what consultants outside their own firm do, or at least they do not appreciate them highly. The data further show that some firms employ consultants who are well known outside their organization and broadly respected, while other firms only have 'local heroes', who are not very well known or valued outside their firm. N1 is a typical firm with only local heroes, while especially N2, N3 and I2 have consultants with a big reputation in their field and in the domain as a whole. Figure 4.3, which shows the origins of the nominations, confirms this. N1, but also BI1, BN1, BN2 predominantly received internal nominations, while N2, N3, I2, and to a less extent I1 and BI2, mostly received nominations from outside their own firm.

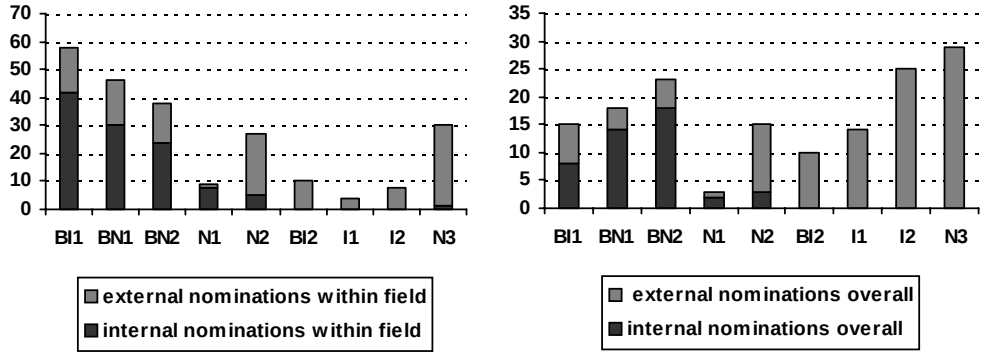

Figure 4.3: Origin of the nominations on a firm level, within the fields of consulting and overall.

The number of consultants that has surpassed the level of local heroism, and whose excellence has become 'visible' at the level of the whole domain, even through the frosted glass that surrounds big consultancies, is rather small. Figure 4.4. shows how many consultants are nominated how many times, both as best within their field and as best overall[35]. In total, 292 consultants were nominated as best within their field and 145 consultants as best in the entire domain[36]. Of these consultants, only eight received more than ten nominations in one of the categories. Two of them are members of the board of BI1 and BN1, which may explain a substantial part of their nominations. Of the six others, two are single consultants, one works at N2, two work at N3, and one works at I2. These consultants are highly visible and respected in the domain, and can be said to form a 'core' of management consulting.

[35] 221 consultants received only 1 nomination as best in their field, and 105 received only 1 nomination as best overall. This does not show in the figure because of the scale that is used.

[36] Within the fields of consulting, 292 consultants were nominated in 503 nominations. This gives a nomination ratio of 0.58 (292 divided by 503). As best overall, 145 consultants were nominated in 295 nominations, which gives a nomination ratio of 0.49. These ratios are a measure for the consensus in the consulting community about who is excellent, and thus form a measure for the homogeneity of the field. The lower the ratio, the higher are the consensus and the homogeneity. As the data show, the ratio rises when an extra source of heterogeneity, viz. the division into working areas, is taken into account. However, the heterogeneity of management consulting cannot be assessed with these ratios because of a lack of benchmarks in the history of management consulting or in other domains. The only reference available is a study of Nedeva, Georghiou, Loveridge, and Cameron. (1996), in which science and technology experts were nominated. This study showed a nomination ratio of 0.78, which indicates more heterogeneity.

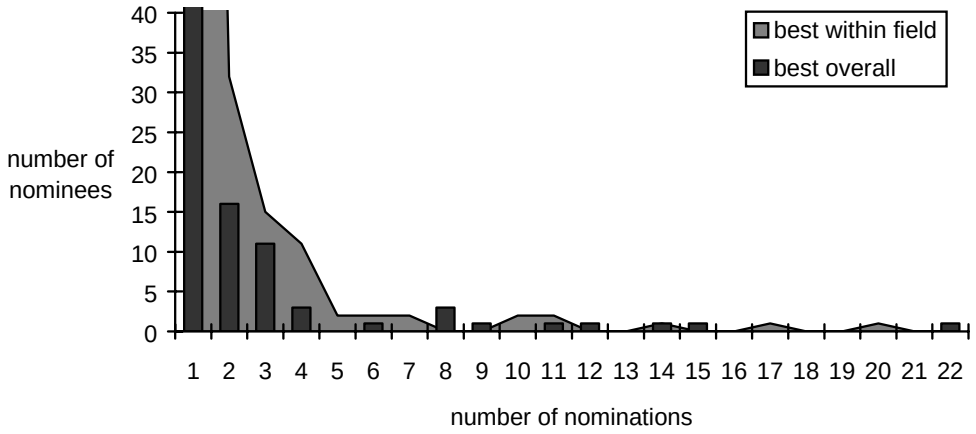

Figure 4.4: Nominees ordered according to the number of nominations they received.

4.2.3 Schools

To what extent is management consulting divided along the lines of different schools of consulting? An answer can be indicated by conducting a co-nomination analysis on the nomination data in the survey. If consultants are nominated together by one respondent, a certain relation between them can be assumed. The strength of the relations can be quantified by means of Jaccard's measures and, based on these measures, a map of management consulting can then be drawn (cf. Figure 4.2). If groups of nominated consultants are strongly linked to each other, while separated from other groups, this may indicate a school of consulting. A distinctive feature of a school is that it has its own 'core' of excellent and exemplary members, distinct from the 'core' of other schools.

Table 4.4 gives the Jaccard's measures for six core consultants. The data shows that they are co-nominated in many possible ways, but that the Jaccard's measures are rather low. This means that these consultants cannot be clustered, nor can they be separated from each other. Therefore, no schools can be identified on the basis of this co-nomination analysis[37].

[37] This does not mean that no schools exist, but only that they cannot be identified on the basis of the survey data. Partly, this has to do with the survey design. Respondents could only nominate three consultants and were free to mention people. With a given list of potentially best consultants, a respondent could have marked more consultants and could have excluded others. This presumably would have led to a more focused nomination behavior and more

Jaccard's measures	*A*	*B*	*C*	*D*	*E*	*F*
A		0.06	0.03	0.09	0.03	0.07
B			-	0.13	-	0.09
C				0.08	0.04	-
D					0.05	-
E						0.06
F						

Table 4.4: Jaccard's measures of the co-nomination for six 'core' consultants, nominated as 'best overall'.

Another indication for schools of consulting can be found in the reasons respondents gave for nominating consultants as one of the best in their field. These reasons reveal part of the evaluative repertoires of the respondents, in particular their judgment of characteristics of excellent consultants. Differences in this evaluative repertoire indicate dividing lines between schools.

Two categories of excellence were given. Respondents could mark whether they thought that their nominee used an excellent consulting method and/or that their nominee was excellent at the social aspects of consulting. In this way, respondents could stress either the cognitive or the socio-political side of their excellence. There was also room to mention other reasons for nomination. Of the respondents, 35% gave extra reasons, sometimes as an addition to the given reasons, sometimes as an elaboration. These reasons have been clustered and categorized, and are summarized and exemplified in table 4.5.

Categories	*Examples: nominated consultants are excellent because...*
Expertise	They possess much expertise and knowledge in certain branches, theories, or fields of consulting.
Conceptual and methodical innovation	They have developed new concepts and methods, or are good at their application in practice.
Cognitive competencies	They are analytical, creative, critical, clever, visionary, or possess a helicopter-view.
Socio-political competencies	They are inspiring, motivating, committed, honest, diplomatic, or good showmen.
Managerial competencies	They are good as a project-manager, coordinator, or administrator.
Success	They have big impact on organizations, satisfied customers, or do more beautiful projects every time.
Wisdom and experience	They are wise, experienced, all-round, or a Nestor in the field.
Miscellaneous	They are self-willed, systematic, confronting, persistent, methodical, strong, reflective, efficient, good as a mentor, have a great network, or do not have a fixed method.

Table 4.5: Characteristics of excellent consultants.

co-nominations. For the survey, however, there were no data in advance to make a good list of potentially best consultants

The given answers, 'good method' and 'good at social aspects' have been marked in 77% of the nominations. These are apparently considered relevant aspects of excellence. 'Good method' has been marked in 59% of the nominations, 'good at social aspects' in 46%. In 28% of the nominations, they have been marked together. This can be interpreted as a counter-indication to a strict separation in one school that mainly emphasizes the cognitive side of consulting, e.g. a classic design school or an expert consulting school, and another school that chiefly emphasizes the socio-political side of consulting, e.g. a developmental school or a process consulting school. Several respondents also stressed that they nominated a consultant because he or she was good at combining the cognitive and the social side of consulting. The other reasons for excellence do not give many indications of the existence of schools either. There is much variety in the arguments, but not many of them are contradictory. Only 'systematic' versus 'creative', 'diplomatic' versus 'self-willed and confronting', and 'methodical' versus 'does not use a fixed method' can be seen as opposites (see table 4.5), which might hint at a difference in evaluative repertoire. The data might even suggest some unity in the idea of individual consultants' excellence. If consultants are good in the cognitive, socio-political, and managerial sides of consulting, if they are experts in a certain field, in which they contribute to the development of new concepts and methods, and if they are wise, authoritative, and successful, then they are generally considered excellent. However, one should be very careful to interpret these characteristics as a sketch of the 'perfect consultant'. Inspired by Tolstoy's opening sentence of *Anna Karenina* (Tolstoy, 1954) one could say: All good consultants are similar, but all excellent consultants are excellent in their own way.

4.2.4 Conclusions

To what extent is management consulting divided along the lines of fields, firms, and schools into distinct subpractices? Concerning the fields of consulting, the survey data suggest that, although there is much heterogeneity, no strict divides exist. Organizational change, and strategy to a lesser extent, form important binding elements in the domain; they overarch the other fields of consulting. And all fields of consulting are connected to all other fields, although some connections are very weak or indirect. There are dividing lines between firms, especially between some

of the bigger firms, where consultants are more company-oriented than profession-oriented. But bridges do exist between firms, formed by consultants who have surpassed the level of local heroism and have become respected in large parts of the consulting domain. These consultants, who mostly work outside the big firms, can be considered the core of management consulting and form a binding element in consulting practices. Divides along the lines of schools of consulting have not been identified in the survey. The members of the core seem not to be divided into schools, and the evaluative repertoires of the responding consultants show much resemblance and relatively few points of opposition. Common points of excellence are a good method, expertise, cognitive, socio-political, and managerial competence, innovativeness in concepts and methods, wisdom, authority, and success. So although there is much variety in consulting practice, binding and overarching elements do exist in the fields of organizational change and strategy, in the core consultants of the domain, and to some extent in the standards of excellence.

4.3 An exploration of management consulting practices

How do management consultants work? According to the International Council of Management Consulting Institutes, "the professional management consultant *moves through a prescribed set of steps* [italics added] bringing objectivity, independence and problem solving skills to the particular requirements of the client, " (ICMCI, 1999, p.7). In other words, professional management consultants follow a phase-model methodology of consulting work. But do they really? Do consultants follow 'a prescribed set of steps' in their consulting assignments? The background diagnosis of this study is that consultants generally do *not* follow standardized phase-models, but that their actions are contingent and situated. On the other hand, they might. As argued in chapter 2, professionalization activities may lead to the standardization of consulting competencies and result in a prominent role for phase-models in guiding practice. And a widespread use among consulting firms of a codification strategy for knowledge management (Hansen et al., 1999) may also lead to standardization and the adherence to phase-models. The purpose of this section is to explore management consulting practices and to examine whether this diagnosis will hold up in the face of empirical data. For these purposes, data will be used from the second part of the survey.

In general terms, three typical ways of working can be distinguished: a fixed way, a variable way and a case-based way. Consultants with a fixed way of working have a standardized generic method, a phase-model filled with 'content matter', which they use in all their projects. Consultants with a variable way of working do not follow a standardized generic method, but tailor their actions to specific situations. In principle, they could do something completely different every time, depending on, among other things, the problem at hand, the wishes of their clients and the contingencies in the process. Consultants with a case-based way of working do not have a standardized generic method, but they explicitly reuse generic elements from 'old' cases, such as standard models or solutions, which they adapt to new situations. Fixed, variable, and case-based ways of working do not exclude each other though. So in the survey, respondents were asked to what extent they considered their way of working as fixed, variable, or case-based. The results are shown in figure 4.5.

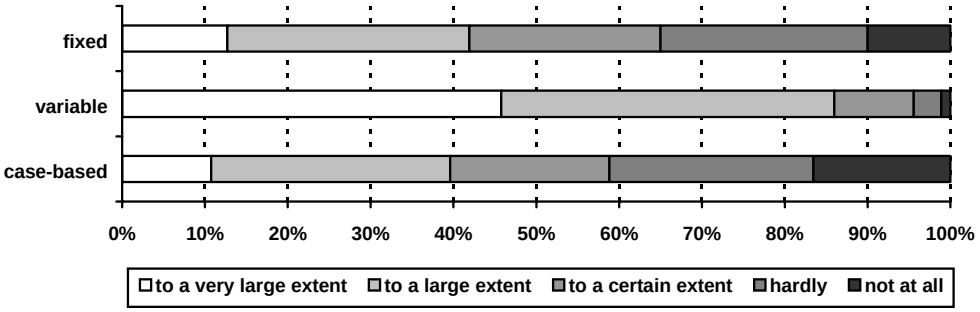

Figure 4.5: The extent to which approaches are fixed, variable, or case-based.

Most respondents, 86%, consider their way of working to a large or very large extent variable, adapted to the specific situation. Only 4% say to have an approach that varies hardly or not at all. Some respondents commented that management consulting projects should always be tailored to the situation. This does not imply, however, that consultants have no fixed or case-based elements in their way of working. Respectively 42% and 40% of the respondents call their approach to a large or very large extent fixed or case-based. And further analysis shows that only 8% of the respondents do not have any fixed or case-based elements at all. A highly variable approach does not mean, apparently,

that consultants do something completely different every time. Their way of working has generic and reusable elements, but these are always adapted to concrete situations. In the following sections, the fixed, variable, and case-based aspects of consulting work will be further explored.

4.3.1 Fixed aspects of management consulting work

Of the respondents, 42% consider their way of working to a large or very large extent as fixed (see figure 4.5). This section explores the fixed aspects of management consulting approaches, in particular the content and use of phase-models. Of the respondents, 64% say they use an explicit phase-model in their consulting work. In the survey, these respondents were asked to mark whether their phase-model contained the phases of the problem solving cycle or regulative cycle (Van Strien, 1986; Lipshitz & Bar Ilan, 1996; Visscher & Rip, 1999b), which is assumed to be a basic figure for phase-models (see 2.1.1). Table 4.6 shows the results.

Phases of the problem solving cycle	*Yes*	*No*	*Not filled in*
Problem clarification	95%	3%	2%
Diagnosis	92%	5%	3%
Solution generation	82%	15%	3%
Testing	58%	33%	9%
Implementation	81%	15%	4%
Evaluation	78%	17%	5%

Table 4.6: Occurrence of phases of the problem solving cycle in the phase-models of the responding consultants.

The data show that clarification and diagnostic phases are present in more than 90% of the phase-models, that solution generation, implementation and evaluation phases are present in about 80% of the models, and that a testing phase is present in almost 60%. Overall, the problem solving cycle appears to correspond fairly well with the phase-models that consultants use in practice.

What are the functions of these phase-models? First, phase-models have a cognitive function. They give consultants guidance and something to hold on to in their work. Second, phase-models have an educational function. They can be used to educate junior consultants. Phase-models guide inexperienced consultants and help them to do a kind of job. These are internal functions of phase-models, which are considered primary by methodologists. Phase-models also have a social function, as a means to

communicate to clients what a consultant does and will do in their organization. In addition, phase-models have a managerial function. They can be used as tools for project-management, to place milestones at the end of phases and to monitor the progress. These are external functions of phase-models. In the survey, the respondents were asked to what extent they used their phase-model for these cognitive, social, managerial, and educational purposes. Figure 4.6 shows the results.

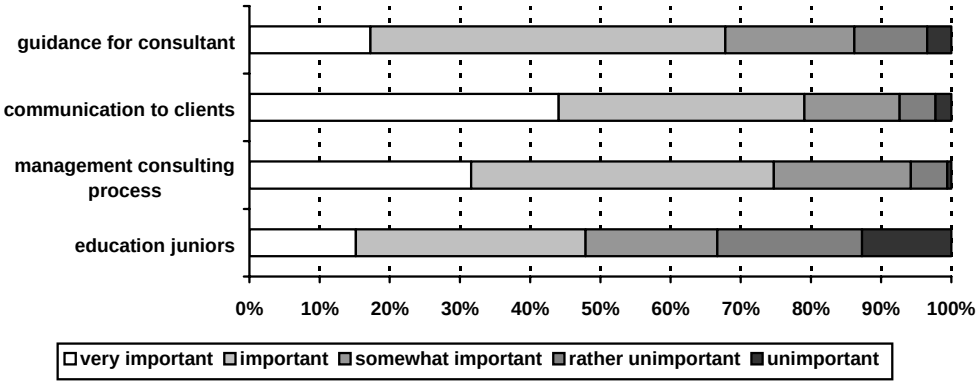

Figure 4.6: The functions of phase-models.

The social function is considered most important, followed by the managerial, cognitive, and educational functions respectively. The external functions of phase-models are regarded as more important than the internal, methodological functions. This is not the case for all respondents though. A minority values internal functions over the external. If the cognitive and social function are compared, 16% of respondents with phase-models think the cognitive function more important than the social function, while 43% see it the other way around.

Phase-models may be followed strictly or they may be applied flexibly, tailored to the specific situations in which they are used. Consultants may skip phases in their models to make shortcuts, combine phases, or switch them. In the survey, respondents were asked how often they skip, combine, or switch. Figure 4.7 shows the results.

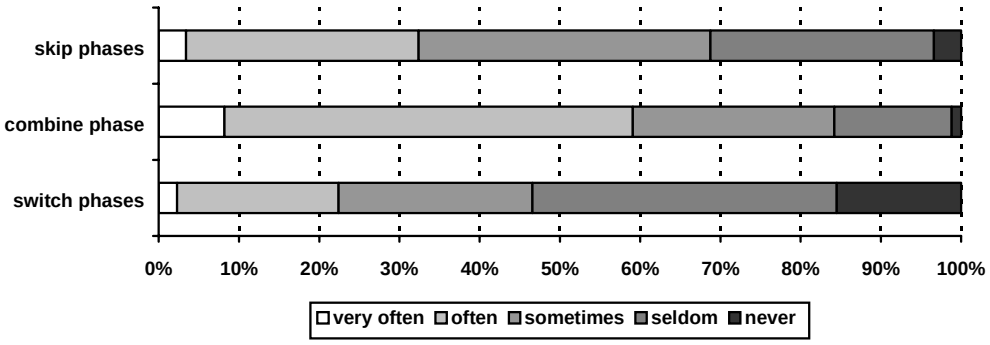

Figure 4.7: Skipping, combining, and switching phases in the use of phase-models.

The data show that a minority of the respondents uses their phase-models in a very strict way. Most consultants show some flexibility in the application of their models, especially in combining phases. This fits with the conclusion that most consultants consider their way of working highly variable and situation-specific. To get an idea of how consultants adapt their phase-models, respondents were asked which phases of their models they skip, combine or switch. Of the respondents 48% told which phases they skip, 49% told which phases they combine, and 32% told which phases they switch. Table 4.7 shows the results concerning the phases of the problem solving cycle[38].

Phases of the problem solving cycle	*Skip*	*Combine*	*Switch*
Problem clarification	6%	39%	5%
Diagnosis	6%	45%	5%
Solution generation	2%	16%	12%
Testing	17%	20%	9%
Implementation	13%	18%	7%
Evaluation	14%	6%	2%

Table 4.7: Skipping, combining, and switching phases.

The data indicate that the problem clarification and diagnostic phases are rarely skipped or switched, but often combined, mostly with each other. In case of combination, consultants probably need a more thorough analysis to shed light on the problem. The solution generation is almost never skipped, but in some cases switched or combined, especially with the implementation and testing phases. This indicates a way of working in

[38] This table does not comprise all skipping, combining and switching behavior. Most phases mentioned by the respondents did not correspond one-on-one with the phases of the problem solving cycle. 67%, 47%, and 84% of the respondents mentioned (also) other phases they skipped, combined or switched.

which design, implementation, and testing are interwoven in an experimental, learning-by-doing process. The regular combination of testing with other phases may also explain the relatively frequent absence of a testing phase in phase-models (see table 4.7). The absence of an explicit phase does not necessarily mean that a consultant does not test his or her solutions, since tests can be an integral part of the other phases. Implementation, testing, and evaluation are sometimes skipped, probably when the consulting project ends with recommendations, and does not include the implementation. Some consultants remarked that the skipping, combining, or switching of phases depends on the situation. According to them, there is not much fixedness in the flexible use of phase-models.

4.3.2 Variable aspects of management consulting work

Of the responding consultants, 86% consider their way of working to a large or very large extent as being variable and situation-specific (see figure 4.5). But what is situation-specific? 'The situation' is an ample and comprehensive term. To which dimensions of a situation do consultants adapt their way of working? In the survey, respondents were asked to mark to what extent they adapt their way of working to three given dimensions, viz. the characteristics of the content of the project, the wishes of their clients, and the actual course of the events in the consulting process. Figure 4.8 shows the results.

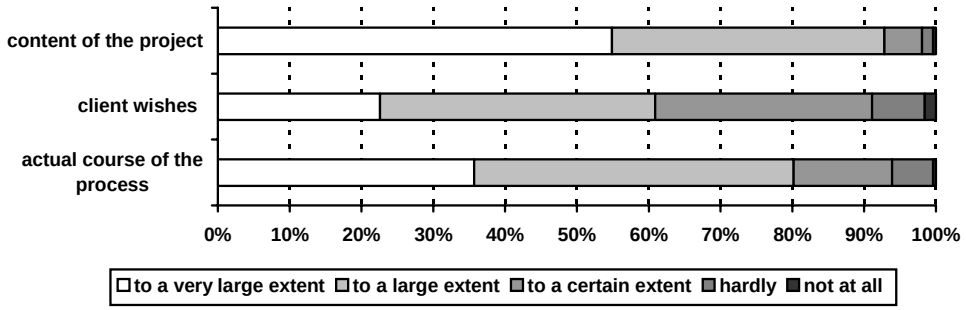

Figure 4.8: Dimensions of situation-specific consulting.

All three dimensions are considered important, but the 'project' dimension is seen as most important, followed by the 'process' and the 'client' dimension. Almost all consultants adapt their way of working to

the content of the problem at hand to a large or very large extent. Apparently, only very few consultants consider themselves to be working in problem situations of one kind or think that they possess a universal recipe for all kinds of problems. The actual course of the project is also considered an important or very important dimension by most consultants. This implies that consulting processes are often seen as uncertain and difficult to predict, and that consultants shape their way of working along the way. The wishes of the client are important, too, although a considerable group of respondents does not adapt their way of working to them to a large or very large extent. These consultants probably consider their way of working a part of their expertise or professionality, and do not think their clients competent enough to accept major alterations.

Dimensions	***In particular, ...***
Project (51)	The availability of time and money (24), the history of the project (5), the feasibility of the project (5), the gravity and escalation of the situation (4), the 'real' problem (4), the complexity of the project (2), the opportunities in the project for the consultant to learn something (2), the similarity to other projects (1), the abstraction of the project (1), and the project in general (2).
Client (50)	The client's quality and strength (14), the relation between the client and the consultant (11), the client's commitment (8), wishes and expectations (6), acceptation of the consultant (5), attitude and personality (3), wishes and opinions of stakeholders (2), and earlier experiences with consultants (1).
Process (19)	The occurring resistance (6), the outcomes of tests and other formative evaluations (3), new ideas and progressive insight (3), unexpected events (2), all kinds of upcoming opportunities (2), changing client wishes (1), and the process in general (2).
Client organization (68)	The commitment and quality of the people in the organization (16), the organizational culture (11), politics (9), structure and scale (4), the change potential in the organization (4), its developmental stage (3), its atmosphere (2), the branch in which it is active (2), the need for communication (2), the manageability of the organization (1), its earlier experiences with consultants (1), and the client organization in general (13).
Consultant (48)	The consultant's personal values, opinions, and style (19), the characteristics of the consulting team (9), the busyness and the ideas in the consultancy firm (6), the consultant's role (6), knowledge and skills (5), mood (2), and reputation (1).
Environment (12)	The developments in the market-environment (3), macro-environment (3), publicity (1), trade-unions (1), and the environment in general (4).

Table 4.8: Dimensions of situation specific consulting.

In the survey, respondents could mention other factors to which they appreciably adapt their way of working. All together, they mentioned 274 factors, some elaborating the given dimensions, others adding new dimensions. The factors have been clustered and categorized. They are

presented in table 4.8[39]. The numbers in brackets indicate how many respondents mentioned a given factor.

The list is long and varied. There are various dimensions relating to the project, the client, and the process. Furthermore, factors that have to do with the environment, and in particular with consultant themselves and the client organization, may influence the way of working of consultants in specific situations.

4.3.3 Case-based aspects of management consulting work

Of the respondents, 40% consider their way of working to a large or very large extent case-based (see figure 4.5). Case-based ways of working can be supported by databases. In the survey, respondents were asked how often they use databases with examples and databases with benchmarks. Figure 4.9 shows the results.

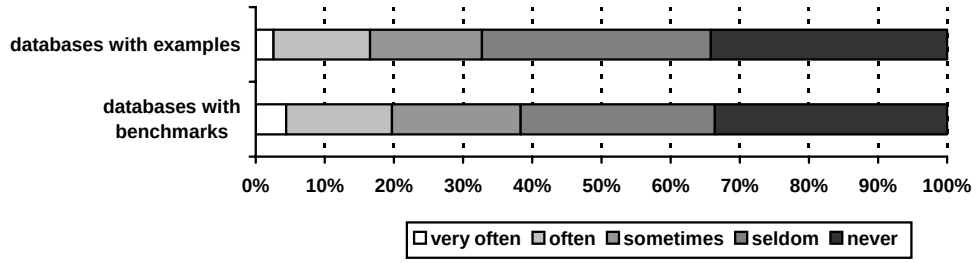

Figure 4.9: The use of databases with examples and with benchmarks.

The number of consultants that uses databases often or very often is about half the number of consultants who say they work case-based to a large or very large extent. Apparently, the other half stores ‘cases’ in different ways. They may have personal archives or just store their experiences in their heads. These media have the disadvantage that their content is much more difficult to share. An advantage is that the need for the codification of experiences is minimal.

[39] Of the 274 given answers, 26 are not categorized in the table; 12 answers were too general, such as ‘the situation’ or ‘the context’, and 14 other answers were too ambiguous or unclear to classify.

4.3.4 Developing a way of working

The preceding sections have explored the fixed, variable, and case-based aspects of the ways consultants work. This section investigates the genesis of these ways of consulting. From which sources do consultants gather the elements that constitute their way of working? In the survey, six sources were given. A first source is the consultants' reflection on their own consulting practice (cf. Schön, 1983). They can do this individually or collectively, together with their colleagues. Consultants can also copy things from their colleagues, especially if they have a mentor or can work with more experienced colleagues who can give training-on-the-job. A further source is their education in a formal setting, at universities, in postgraduate courses, or in specific management consulting courses. In these settings, competencies that are articulated on the professional level can be transferred to individual consultants. And finally, of course, literature can be a source. Consultants can adopt methods that have been described in literature, or they can use it as a source of inspiration for the development of their own way of working. In the survey, the respondents marked to what extent they used these sources to develop their way of working. Figure 4.10 shows the results. The respondents also mentioned other sources, such as their clients, their juniors, the international standards of their firm, and literature outside the field of management.

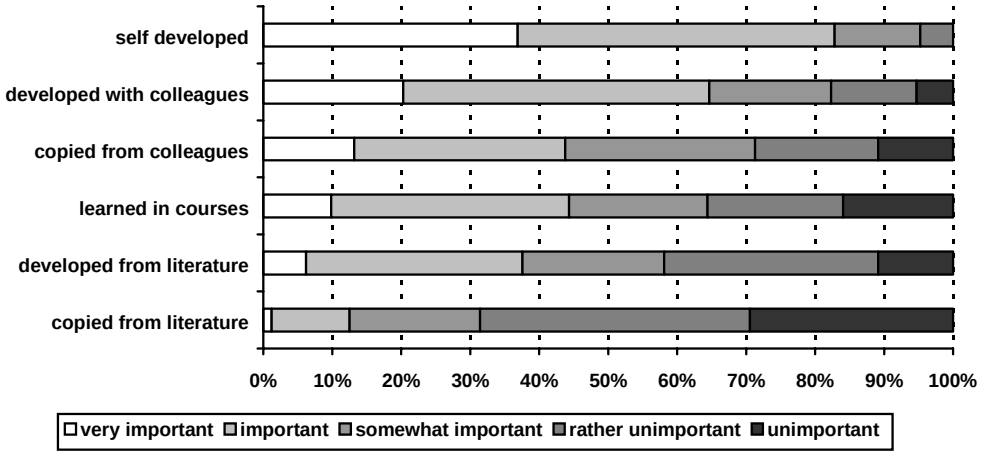

Figure 4.10: The importance of different sources for repertoire building.

There is a clear ranking. Developing a way of working is most importantly done by way of the individual reflections of consultants,

while copying from literature is considered the least important. It appears to be more an individual activity than a collective or professional activity. Besides, the active ways of development are considered more important than the receptive ways. Consulting competencies are only partly articulated on the professional level, and can only to some extent be acquired through formal education and literature[40]. Learning-by-doing in concrete projects, in interaction with clients and colleagues, is in general considered more important.

This picture does not apply to all respondents. Further analysis shows that 5% consider the copying from colleagues more important than all other sources, 3% think the same of their education, and 2% consider 'developed from literature' as their most important source. There seems to be a small group of consultants who emphasize the receptive ways of development and the sources on the professional level. To explore this group further, correlations between the different ways of development have been calculated. Table 4.9 shows the results.

	SD	*DwC*	*CfC*	*LiC*	*DfL*	*CfL*
Self developed	1.00	-.098	-.188**	-.130*	.043	-.076
Developed with colleagues		1.00	.170**	-.022	.042	.022
Copied from colleagues			1.00	.151*	.022	.171**
Learned in courses				1.00	.239**	.302**
Developed from literature					1.00	.512**
Copied from literature						1.00

Table 4.9: Pearson correlations of the different sources for repertoire building (* means that the correlation is significant at the 0.05 level; ** means that the correlation is significant at the 0.01 level).

There are significant positive correlations among the different roles of literature, education, and the copying from colleagues, while the copying from colleagues and the learning in courses have a significant negative correlation with the individual development of a repertoire by reflection on experiences. This indicates a certain differentiation between a large group with a more active and individual way, and a small group with a more passive and collective way of repertoire building.

[40] The survey did not distinguish between professional education and other forms of education, or between professional literature and other literature. Thus, the importance of specific professional training and literature, as a part of professionalization activities, may be lower than the survey shows.

4.3.5 Conclusions

The purpose of this section was to explore management consulting practices empirically and to test the background diagnosis of this study, that design is situated action rather than 'following phase-models'. When confronted with the survey data, the background diagnosis does hold: consultants generally do not follow phase-models. Although there is a small group of consultants who say they follow phase-models strictly, use them predominantly for methodological functions, and have a largely codified way of working with many generic and reusable elements[41], most consultants appear to consider their way of working as highly variable and situation-specific. Apparently, the standardization of consulting work, which might have resulted from professionalization or knowledge management activities, remains limited in the domain. Most consultants tailor their actions to the kind of project, the wishes of their clients, the contingencies of the process, and a whole range of other factors. These contingencies, which are thought to be essential for good consulting work, cannot be covered by a fixed series of steps. Of course, a sophisticated phase-model might, in principle, incorporate some of the contingency factors, such as the branch in which an organization is active or its developmental stage, but not all relevant factors. Some factors that are mentioned, such as the consultant's mood, the history of the project,

[41] Who are these consultants who follow phase-models? Analysis of the survey data show that it is not an identifiable group within one field of consulting, or within one experiential age category. In a reaction on a paper in which the survey results were presented (Visscher, 2000), it was suggested that the followers of phase-models can be found within big international consulting firms, because these firms follow codification strategies (Hansen et al., 1999) in which consulting work is being standardized. The survey data does not confirm this hypothesis, though. The group of respondents from big international firms, 39 consultants in total, use relatively more phase-models indeed (85% use them, versus 64% average), they use databases with examples and benchmarks more often (about twice as much as average), and their way of working is relatively more fixed and less variable (the way of working is regarded fixed and variable to about the same extent, while in average, ways of working are regarded more variable than fixed). But the respondents from big international firms also use their phase-models more importantly for external functions than for internal functions, and they skip, combine, and switch stages from their models, too, be it somewhat less than other consultants. Besides, they adapt their way of working importantly to the contingencies of the situation, with the difference that they adapt their way of working more than average to the wishes of the client and less than average to the actual course of the process. Therefore, one can say that the differences between consultants from big international firms and other consultants are gradual rather than categorical. Big consultancies may provide their consultants with more phase-models and other (semi)-fixed resources, but they cannot be identified as THE locations for phase-model followers.

and ‘unexpected events’, are impossible to incorporate in any phase-model.

That consulting work is in general not ‘following phase-models’ does not mean that consultants do not have phase-models. Many consultants have and use them. However, the external functions of phase-models, communication and project-management, are generally considered more important than the internal, methodological functions of guiding practitioners and educating novices. Phase-models may be followed to some extent, but then flexibly, by combining, skipping, or switching steps. They are often altered to match the situation. This frequent deviation from the ‘official’ order would be an anomaly from the ‘consulting as following phase-models’ perspective. One could wonder why consultants do not make more accurate and precise phase-models, which do not ask for reparation so often. The reason is that phase-models are not primarily meant to be strictly followed, and that more accuracy and precision does not necessarily improve their value. It is a tool, which may have several functions in the hands of a competent consultant. Improving the precision and accuracy of that tool might enhance its function as a guideline, but hamper its function as a medium for communication and project-management.

Consultants appear to be bricoleurs (Lévi-Strauss, 1966; Weick, 1993). They have broad repertoires from which they assemble their way of working in a concrete situation. Phase-models may be an element of such a repertoire, just as databases and all sorts of ‘uncodified’ experiences. A repertoire is most importantly built through the consultant’s reflection on his or her own experiences. Management literature, which is full of phase-models and other models that consultants might use, is considered a relatively unimportant source. It may be a source of inspiration, but not one to copy from. To a large extent, management consulting has to be learned in practice, in the messy lowlands of concrete management consulting projects.

5

Organizational design practices in management consulting

The purposes of this chapter are to explore design practices in management consulting and to construct a basis for practice-based design methodology. The chapter reports on a series of interviews with twenty-four management consultants, who are considered to be excellent practitioners and who, as a group, cover most variety in the domain. In chapter 2, a vocabulary was developed, which will be used in this chapter to describe organizational design practices. At the conclusion of chapter 2, this vocabulary was summarized as follows: Designing is a process in which *function and form are co-constructed*. The co-constructive design process has three key components, viz. reflection-in-action, heterogeneous engineering, and bricolage. The process of *reflection-in-action* consists of two complementary parts: first, the *identification of an inconsistency* in function and form, or the process of framing, and second the *construction of a new consistency* in function and form. Framing encompasses the exploration, assessment, and disciplining of design situations. The construction of a new consistency consists of two complementary parts: the spreading out of a web of alternative designs and the narrowing down of that web through the creation of design nodes. The second component of the co-constructive design process, *heterogeneous engineering*, highlights the alignment of cognitive and socio-political processes. This encompasses the management of design spaces and the inclusion and exclusion of people. The third component, *bricolage*, highlights the resources for the design process. Designers collect and construct a variety of resources, and store them in their repertoire. Bricolage is tinkering and improvising with these resources in concrete situations.

The components of this vocabulary will be elaborated in this chapter. The creation of an inconsistency in function and form is discussed in section 5.1. In section 5.2, the construction of a new consistency in function and form and heterogeneous engineering are elaborated. In section 5.3, bricolage is discussed. In particular, the use and construction of phase-models are discussed, building on the conclusions of chapter 4.

5.1 Identifying inconsistency in function and form

The identification of an inconsistency in function and form is a process of framing, which encompasses the exploration, assessment, and disciplining of design situations. Section 5.1.1 discusses what exactly consultants explore in new design situations and for which reasons. The techniques they use for their exploration are discussed in section 5.1.2. Section 5.1.3 elaborates in which way design situations are assessed. And in section 5.1.4, the disciplining of the design situation is discussed. How do the interviewed consultants do it and for which reasons?

5.1.1 Exploring the situation

Where does the exploration of a new design situation start? Since consultants are mostly hired as outsiders, external to the organization that is to be designed or redesigned, the exploration normally starts with an exploration of the questions articulated by the client. Clients tend to formulate their questions in terms of functions to be realized or, more often, in terms of forms to be implemented. In the projects discussed in the interviews, seven of the consultants were hired by clients who said they had wanted to realize certain functions, while fourteen other consultants were hired by clients who said they wanted assistance with the elaboration and implementation of a form.

One of the reasons for the frequent occurrence of forms in the questions of clients may be the popularity of fashionable management concepts in the domain[42]. Management gurus and big consulting agencies stimulate managers to want certain forms. Parker, working for a big international

[42] See section 4.1 for an elaboration of the role of management fashions. And for other reasons for the frequent occurrence of forms, see section 2.1.2, with a discussion of solution-driven designing.

consulting firm, told that his firm publishes books with so-called 'business solutions', persuasive descriptions of generic forms, which are meant to generate a demand for the forms the firm can supply. On the other hand, there are also consultants who do not 'trade in forms', as one of the interviewed consultants called it. They tend to dissuade their clients from taking a form as a starting point and direct their attention to the functions they want to realize. Dodge, for instance, had a client who initially wanted a cultural change program. Directly during the intake, Dodge asked him critically why he wanted to have such a program. The dialogue that followed brought them to the conclusion that the cultural change was supposed to have the function of enhancing the poor market-orientation of the employees, which they then took as a starting point for the design process instead.

None of the interviewed consultants replicated the form or function their clients articulated right away. They all took it as a starting point for further exploration. Consultants apparently assume that the client's question does not necessarily reflect what is really going on. The following quote, by Nevins, is illustrative.

> In almost every question a consultant gets, you know from previous experiences that there are a great many underlying questions that should be answered first, before you can really address the question posed. And you very often see that quite different, unstated, subjects play an important role; they somehow agreed internally to put subject A on the agenda with the consultant, when, in fact, it is all about subject C, but no one dares to talk about C at that moment [quote 1][43].

Making inventories of forms and functions

Starting from the functions or forms in the client's question, consultants dig deeper. This digging encompasses the making of an inventory in the organization of alternative ideas about forms to implement, and of other perspectives on the functions to realize. There are several reasons for such an early inventory of forms and functions. Firstly, consider the *inventory of forms*. This is done to be able to make shortcuts in the design process, to anticipate the implementation, to steer the process, or to identify blind spots in the organization. Shortcuts in the design process can be made if the inventory of forms reveals that there is already

[43] The original quotations, in Dutch, can be found in appendix A.

consensus among the key figures in the organization about the form to implement or about the direction in which the form should be sought. In such a case, the analysis of the functions and the generation of alternative forms may be skipped or shortened. The decision to make a shortcut involves a judgment of a trade-off: a shortcut means that the design process shortens, gains momentum, and becomes less costly for the client, while on the other hand, it entails that possibly better forms are overlooked and that the consultant's time spent on the project, and thus the fee, diminishes. It depends on the nature of the design situation and the judgment of the consultant whether a shortcut is actually taken. To give an idea of the deliberation that takes place, consider the following example. Ingle assisted in a merging process of educational organizations. There was consensus among the key players about the merger, and after a short check whether it made sense to merge and whether they were sufficiently capable and committed to make it into a success, Ingle decided to skip further analysis. He argued that in a merger, speed and gaining momentum are important in order to keep the parties committed and to make the process irreversible, so shortcuts should be made when possible. Besides, there were opportunities to do additional analysis in a later stage of the process, in order to repair possible omissions. Concretely, he postponed a market analysis, which he needed to underpin and rationalize the synergy of the merger to external parties.

When there is no consensus among the key figures and no shortcut can be made, this does not render the inventory of forms useless. It gives the consultants an idea of the environment in which the designs will be decided upon. This gives them the opportunity to anticipate the reception of the designs by taking into account the key figures' initial ideas about forms. Furthermore, since the inventory gives the consultants a complete picture of the present ideas about forms, it also gives them opportunities for steering and manipulation, especially if they know more than the individual participants. In the course of the design process they may, for instance, ask extra attention for valuable ideas of a minority in the organization; they may put extra effort in agitating against a certain unfavorable form that they know to have advocates among the key figures; or they may insist on extra analyses when they sense that some figures are too eager to make shortcuts in their own favor. Furthermore, the inventory of forms helps to identify blind spots in the imagination of the members of the organization. Wright used the inventory of forms

mainly for this last purpose in an assignment for a wholesaler. He found out that almost all forms proposed in the organization had to do with an expansion of marketing and a cost-cutting on logistics. Apparently, the people in that organization were blinded to other forms, in particular to forms that involved the improvement of logistics.

Consultants also make an *inventory of functions*. This inventory consists for the largest part of a collection of problems that are to be solved or diminished. Consultants gather problems and perspectives on problems to be able to make a shortcut in the design process, or to prevent that a shortcut is made. In simple situations, when there are only one or a few clear-cut and agreed-upon problems, consultants make a shortcut in their analysis to their idea of 'the real problem' or 'the core problem'. Then they know quickly what the problem is, and they only need the inventory as a check on their judgment. In complex situations, with diverse, contradictory, and incommensurable problems, no shortcut can be made. In such cases, the inventory is used to get a full picture of the problem situation, and to collect arguments to dissuade people from trying to make a shortcut by imposing their view of the problem on the situation. In complex situations, Yates uses the term 'problematique' rather than 'problem'. He said:

> In those situations, there never is just 'a problem'; there is always a complex problematique. Each individual is involved with his whole history, emotions, and experiences. And, accordingly, each individual has a different perspective on the problematique. So, what is THE problem? You can't just state it simply, since everyone has a different version [quote 2].

A problematique can be reduced to a problem by choosing one of the perspectives, but that excludes other perspectives and damages the commitment to the design process of the people who adhere to them. A better and often used way to reduce the complexity of a problematique is to make a map of people and perspectives, and to link this map to the socio-political map of the organization. This creates order and gives openings for a dialogue among the participants in which they can, more or less steered by the consultant, discuss, persuade, negotiate, and strive for consensus, or at least manageable dissensus, about the problematique to be tackled in the design process.

In cases where consultants are hired to carry out a design process that is part of a more encompassing redesign, consultants also explore the higher-level design as a source of functions. Valentine, Fannon, and Urwick did projects in which this was the case. Valentine redesigned management functions as part of a big organizational redesign and cultural change program. Fannon was hired for the detailed design and implementation of a new organizational blueprint, made by another consultancy firm. And Urwick redesigned administrative processes as part of an ERP project. In these cases, the clients had created a stratification of designs, in which higher-level designs imposed functions on lower level designs. The existence of a higher-level design makes it possible for consultants to confine themselves to lower-level designs, thus limiting the complexity of the project.

Exploring organizations

The exploration of the design situation also encompasses an exploration of the organization in which the design process takes place. Consultants need at least a general impression of the organization, firstly to be able to understand the context in which the functions and forms are articulated, and secondly to form their own opinion of the inconsistencies in the organization. In almost all projects discussed in the interviews, the consultants looked at the products and services the organization provides, the markets in which it operates, the strategy it pursues, the primary processes through which its products and services are created, and its organizational structure. These are all relevant but obvious items, which could be found in any management textbook. The consultants also commonly made a socio-political map of the organization, – unless the socio-political situation was very simple or unimportant for the design process – identified key figures and stakeholders, and sketched their positions and interests. In some cases, they also dug into the organizational history, culture, and identity, or into its finances, its technology, or the knowledge and skills of its employees.

The depth of this organizational exploration depends, among other things, on the question for which the consultants are hired, their knowledge of the organization beforehand, the complexity of the design situation, their own methods or habits, and the time-pressure on the project. Depth in the exploration of the organization is advisable in projects concerning integral and complex questions, with little time-

pressure, in an organization that is new to the consultant, who has elaborate exploration methods or habits. For projects with limited and fairly simple questions, much time-pressure, and sufficient knowledge about the organization from earlier experiences, less depth is required.

A less frequently executed, but interesting part of the organizational exploration is the *exploration of local practices*. This means that consultants try to uncover what they call the 'unwritten laws and mechanisms', the 'elementary rules', the 'thinking-patterns', or the 'Alt-F3 codes', which underlie functions and forms that come up in an organization. They regard the questions of clients as resulting from their organizational practices, the local ways of doing and seeing things. And it may be the case that clients are imprisoned in unproductive practices and ask questions that do not bring them any further. In those cases, the practices should form the focus of redesign, rather than what was requested as design. As an example, consider a project discussed by Kelly, in which he was asked by the management of a nursing home to make an implementation plan for a series of improvement plans. The reason that these improvement plans had not been implemented already was not that they lacked an implementation plan though, but that they got stuck in their local practices of making plans, which resulted in a lot of paper-work and discussion, but in little action and repeatedly in stranded implementations. Therefore, Kelly shifted from making an implementation plan to redesigning local practices.

5.1.2 Exploration techniques

Consultants use a mixture of techniques for the exploration of design situations, but the most often employed technique is the one-on-one interview. All consultants used it in their projects in one way or another. Consultants mostly conduct interviews in two rounds: first the client, i.e. the manager, director, or other person who hired them, and then a group of so-called key figures. The interviews with the client are focused on the exploration of the client's questions and expectations, on building a relationship of mutual trust, and on reaching agreement about the contract. The interviews with the key figures in the organization focus on a further exploration of functions, forms, and characteristics of the organization. For this second round of interviews, the question 'whom to

interview and in which way' is considered crucial, because it sets the stage for the whole design process.

The general answer to the question *'whom to interview?'* is that key figures should be interviewed, but whom is to be considered a key figure? In many cases, this boils down to the members of the management team, the directors, the heads of the most important departments, a representative of the working council, and a few other people with special knowledge or interests in the design situation. Key figures are selected on content-related and socio-political criteria, but the socio-political criteria are stressed more often by the interviewed consultants. It is important to talk to anyone who has the power to block the design or the design process at some stage. Hearing their perspective helps to anticipate the environment in which the designs will be decided upon, and the interviews themselves enhance the key figures' commitment to the design process, since they are given the idea that their opinion matters. According to Yates, it is not necessary to actually talk to all people with power in the organization, as long as they believe you have heard their perspective.

Although the appropriate number of key figures to interview depends on the situation, a number of ten to fifteen interviews seems normal. Sawyer, for instance, said he generally needs about seven interviews to figure out what is going on, and then does a few extra to check his ideas and to gain extra commitment for the design process. When clients propose to do additional interviews, consultants tend not to object, even if they do not think them necessary, as Yates and Sawyer admitted with a smile, because extra interviews also imply extra fees.

For the exploration of local practices, clients can be asked to make a list of key figures. This shows the client's view on who matters and who does not matter in the organization. Wright and Kelly used this trick. Wright's client put predominantly marketing people on the list, while Kelly's client selected people based solely on their function in the hierarchy, which showed their marketing and hierarchical biases, respectively. Changing the list of key figures, and talking to people whom the client initially considered less relevant were then used as a way to start transforming local practices.

In *preparation* for the interviews, consultants often give key figures some questions or an assignment in advance. This may be a list with issues, or, for example, a questionnaire. Wright created an original assignment: he asked his interviewees to make a photo-album about the organization, its current problems, and its future. One interviewee gave the CEO of the company a bunch of strings in his hand and made a picture of it with the title 'the CEO pulls all the strings'. Another used a holiday picture of several Cubans working on an old, broken down car, saying "many people try to tackle the same problem and then choose a cheap, temporary solution". In this way, he collected strong images about what was considered wrong and right in the organization, and had a great opening for discussing the perspectives of the key figures in-depth during the interviews.

In relatively simple cases, when client and consultant are already quite certain about the 'core problem' or the form to implement, and wish to make a shortcut in the exploration, they may give the key figures a preliminary description of this function or form and ask them to confirm or amend it. This makes the interviews more focused and makes it easier to tie the different perspectives together afterwards. In more complex cases, consultants seek a balance between asking what they want to know and letting their interviewees tell what they want to tell. In order to hear the interviewee's perspective on the situation, consultants then bracket their own ideas about what is going on for a while. They may start their interviews, for example, with open questions like 'what do you think to be the problem in this organization?', or 'why are we talking to each other right now?', to leave the interviewees free to give their vision on the situation. Adams said about interviewing:

> One of the most dangerous pitfalls in management consulting work is that a preconceived line of thought keeps us from listening well, and that the people concerned do not put forward their real problems. If I start from a preconceived line of thought, I run the risk of being biased and think 'it must be like this'. Listening with an open-mind is very important. […] Part of my methodology is strongly geared toward 'can I get the right questions raised' and not at 'what is the answer'. If you think you have posed the right question, you proceed towards an answer, whereas if you would have listened more carefully and would have followed up on your questions, you would have found out that you weren't asking the right question after all [quote 3].

To encourage the interviewees to give their real opinions and visions, especially in difficult or politically sensitive situations, it is important to create an atmosphere of trust, in which the interviewees feel free to tell what they want to tell. According to Johnston, some small-talk at the beginning of an interview often does the trick.

> In each interview you need some time to build trust. You should enter with some small-talk, a chat about the painting on the wall or about the route you drove to get there, so that they can see that you are a normal human being and that it's not just about the research. With small-talk you invest a bit in the relationship, as it concerns something you have in common [quote 4].

It is also important to remain critical towards the interviewees and to try to find out whether or not they are withholding relevant information. Sawyer told an anecdote about a former colleague of his who was always so afraid of misunderstanding his interviewees that he asked them time and again to explain what they meant. The effect this had on the interviewees was that they thought 'that's a clever man; he sees through our lies and fabrications', and at last they just told him the truth. Sawyer uses this trick deliberately now when he doubts whether his interviewees are telling the entire truth.

Other techniques that consultants use in their exploration are group-interviews, the study of documents and reports, the observation of people at work, and the consultation of colleagues or the archives of their consulting firm. For most interviewed consultants, these activities are meant as preparatory or complementary for the interviews. Evans is an exception, in the sense that in his explorations – mostly in very complex situations – observation in different parts of the organization is much more important than the interviews with key figures. The observation of people at work and the conversations with them give him a profound idea of what people are really doing, what motivates and bothers them, and how they interact with colleagues and clients. Besides, it shows the diversity in the organization, and facilitates a broader perspective than only the view of the selected key figures. On the other hand, it is much more time-consuming than a series of interviews.

5.1.3 Assessing the situation

Framing a design situation also includes an assessment. Earlier in this chapter, the assessment of the functions and forms articulated by clients and key figures was already discussed. The interviews in this study also yielded the insight that consultants pay much attention to the assessment of the doability of the existent ideas about forms, the strength and commitment of the client and the key figures, the momentum in the design process, the complexity of the design situation, and the match between consultant, design method, client, and design situation.

Forms that are collected in the inventory of forms are not only assessed on their functionality – do they fulfill the functions that need to be realized – but also on their hardness, ambitiousness, and doability. This means that consultants judge how difficult it is to elaborate and implement a certain form, and whether the resources to do so are available in the organization. It is important to make this assessment at the beginning of the design process, because a positive judgment could enable a shortcut in the process, while the negative judgment that a form is too ambitious or too hard to implement would block such a shortcut.

The ambitiousness and doability of a form is related to the *strength and commitment* of the client and the key figures. With a strong and committed client, ambitious and difficult designs are doable. Thompson's project is illustrative. He encountered a situation in which some key figures in the organization wanted a drastic redesign of the structure, taking the primary process as a basis. In light of the functions, this was a good idea, but Thompson reasoned that a drastic redesign requires a strong management to implement it, and all kinds of clues indicated that this was not the case in the organization that hired him. The proposed form was just too ambitious and would not be doable. Therefore, he proposed to keep the current main structure of the organization intact, for the time being, and to focus on less-radical improvements of the structure and the strengthening of the management instead.

An assessment of the strength and commitment of the client is also relevant for the choice of a design strategy. Clark explained the way in which he uses this assessment to choose a strategy. If management is strong and powerful, and also has the knowledge to make a design, Clark mostly chooses for a quick and manageable design process within a

restricted group, a so-called 'tell and sell' strategy, similar to the classic design approach. But if management is weak or lacks the knowledge required, he needs broad commitment in the organization and makes the design process collaborative from the very beginning, since a 'tell and sell' strategy would inevitably result in weak and unimplementable designs.

Consultants also form a judgment about the *momentum and pace* with which the design process is advancing, or could advance. They try to estimate whether the process can be accelerated and in which way it might stagnate, for instance due to lack of commitment of the management, the key figures, or other stakeholders. An assessment of the achievable tempo is also important for making a realistic planning.

A particularly interesting assessment concerns the *complexity* of the design situation, since consultants use this assessment for the shaping of their design strategy. Consultants act differently in situations they regard as complex than in situations they regard as simple. In general, consultants work more carefully, more exploratorily, and more reflectively in complex situations. Quigel, for example, told that, in complex situations, he always collects thorough knowledge of the primary process of the organization, and Fannon said that he never uses a precooked method in complex situations, but works one-step-at-a-time, monitors the process closely and shapes his way of working along the way. In simple situations, consultants work more straightforwardly and make shortcuts they would otherwise consider rash and risky.

What makes a situation complex rather than simple? The indications of complexity that were mentioned by the interviewed consultants can be divided into two categories: cognitive complexity and socio-political complexity. *Cognitive complexity* has to do with the difficulty and uniqueness of the situation, the number of levels, the variety of facets, and the size and diversity of the organization. In Thompson's metaphor, a cognitively complex situation is like a plate of spaghetti; everything is related to everything else, and if you pull one end, everything moves. Some examples of cognitively complex situations would be the restructuring of a large maintenance organization with many different processes and locations (Quigel), or the integral redesign of the strategy and structure of a large academic organization (Clark). Examples of simple situations are composing a board of directors (Thompson), or

making new job designs for middle-managers in a middle-sized ICT-firm (Quigel). *Socio-political complexity* has to do with the number of key figures or stakeholders involved, their differences in opinions, perspectives, and interests, and the presence of conflicts and lack of trust among them. According to Thompson, a situation is socio-politically complex when:

> […] when the situation is laden with conflict, the client is part of the problematique, and the suggestions you make about the content land in a complex field of opinions, interests, and perspectives. When such is the case, I will definitely not presume to know what is the best approach. I cannot do that, nor do I want to. First, I need to get a feel for the internal relations [quote 5].

The judgment about complexity depends not only on the characteristics of the design situation, but also on the consultants' experience, expertise, self-confidence, and maybe their brashness or cautiousness. A situation may be considered complex by one consultant, while another thinks it to be simple. In general, the interviewed consultants warn against regarding a situation as simple too quickly. It may lead to mistakes, and besides, it may repel clients, especially when clients perceive their situation as complex. Fannon and Thompson mentioned that they won the tender of the projects discussed because their competitor, a big international consulting firm, disregarded the complexity of the situation and claimed to know what should be done without further exploration, to which the clients reacted with 'if it were that simple, we would have solved it ourselves'.

It is remarkable that all the interviewed consultants with whom a project has been discussed considered their projects to be complex. They only mentioned their more simple projects when they were explicitly asked, and even then with little interest and only to contrast with the projects under discussion. Apparently, these consultants prefer to work in situations they regard as complex. Phrasing this finding differently, one can say that the interviewed consultants, who are among the best in the country, prefer to work in situations where they do not know what to do. This seems paradoxical, but these consultants might be among the best in the country precisely because they do mostly complex projects. Or they might do these kinds of projects because they are so good that they do not find simple projects challenging or professionally rewarding anymore.

Some of the interviewed consultants, especially within bigger firms, are also deliberately put on complex projects in order to develop new 'products' for the firm in the form of new concepts or methods. Doing complex projects is then a source of product innovation.

Another important assessment concerns the *fit between consultant, design method, client, and design situation*. Consultants judge whether they are the right consultant to do the assignment, and whether they have the right method for it. From a commercial point of view, and also to keep pace in the design process, it is important to make this assessment as early as possible – preferably even before the tender is made. If consultants would later come to the conclusion that they are not the right person for the project, or do not have the right method, it is time and money wasted. Major difficulties with this assessment are, first, that it has to be made when only very little is known yet about the situation, and secondly, that rejecting a project implies a loss of income for the consultant. This may tempt consultants to be too optimistic about their chances of bringing a project to a successful end. Especially when the order book is empty, or when junior consultants are to be kept busy, it may be tempting to give it a try in cases of doubt, with risks for the quality of the design process and the resulting design. Some of the single, independent interviewees hinted that particularly big consulting firms tend to fall for these temptations. But according to Urwick, who works for a big international consulting firm, the organizational culture of his firm counters this temptation. He said:

> In our firm, a big incentive exists for referring clients to colleagues. It is better to refer a client to a colleague than to help him paint his house on a Saturday; it yields more points in the social relation. You don't get anything for it, it is not officially registered, but there is a kind of semi-official ranking among colleagues. […] For me, it is very important to refer something I am not good at to a colleague; and to steer clear of the things I cannot do well, because there is an enormous penalty on unsatisfied customers in our culture. We measure that once a year in an independent survey. […] Everyone knows his own 'quality-score' and everyone knows each other's scores as well. All together, this makes it unlikely that we will do a project we cannot handle well, doing something for a client that does not benefit him [quote 6].

An assessment of the match between consultant and client on an individual level is also important. From the client's perspective, the 'click'

with the consultant is almost always an issue. Clients normally do not hire consultants they do not like or trust. But consultants themselves also judge the match with the client in order to assess whether the collaboration in the design process can be productive. This assessment involves a judgment of the complementarity of consultant and client, which is thought to be necessary for a productive relationship, and also encompasses the subjective question of whether the consultant likes the client. Valentine told that when he does not like his client during the intake, this is mostly a reliable omen that things will go wrong in their relationship in the course of the project.

5.1.4 Disciplining the situation

Disciplining a design situation is the core of the framing process. It entails putting a discipline, i.e. a model, unifying perspective, or central idea on a situation, which creates a coherent story about an inconsistency in function and form. After disciplining, one can say 'this is the matter and this is how we proceed to create a new consistency in function and form'.

Design situations are disciplined in a dialogue between consultants and clients. The interviews reveal much variety in how this dialogue takes place, especially in the division of roles between consultants and clients, and the function of models. The source of this variety appears to be the style of the consultants rather than the characteristics of the design situation and the client. To draw the variety in ways of disciplining, consider the examples of Evans, Mitchell, and Clark. Evans leaves the disciplining to the client and refrains from putting his own discipline on the situation. He said:

> Why, for heaven's sake, would you, as a consultant, tell them what is wrong? That's absurd. No, I didn't consider that for a moment, that's something I never do. […] Telling what is wrong in a company? No! I tried to get a feeling for how I could approach their concrete question with them. I don't write it down, I don't elaborate it, I don't order it, I just let it emerge [quote 7].

Mitchell, in contrast, is not interested in the client's way of disciplining the situation. He wants to hear concrete stories about what is the matter, and uses his own model to discipline the situation. He is like a doctor who wants to hear the patient's complaints in order to make a diagnosis,

but is not interested in hearing what the patient himself thinks his ailment is. He said:

> If people don't tell concretely about their problems, you won't find out what is wrong; then you will only get interpretations, explanations, and backgrounds that I'm not interested in. […] So they should give meticulous case-descriptions. Those are also reflections of course, but I can listen through them and hear whether it is a coherent story or not [quote 8].

Clark disciplines gradually, in an exploratory conversation with the client, the design situation, and the organization. He shifts from one discipline to another, using a series of models and concepts to try to grasp what is the matter. He said:

> The longer you are in an organization, the more nuanced and broad your diagnosis will become. So you can never start with a completed model. […] The nice thing about consulting work is that while you do have models at your disposal, you develop them interactively, together with the client. […] It is an interactive complex, and often multidimensional. You can't say 'it is a strategic problem', because it is also a negotiation problem, and also a cultural problem. So complexity makes it difficult to say 'I have a model'. No, you switch between a number of models [quote 9].

The disciplining of a design situation may be the endpoint of a framing process, but not necessarily. In principle, the stability and coherence of the framed situation is precarious, and the exploring, assessing, and disciplining is an ongoing process, which may lead to *reframing* in the course of the design process. Consultants may stabilize the framed situation by putting it in black-and-white on a diagnostic report, or by making it into a decision in a meeting with key figures. An interviewed consultant said that some consultancies even make the frame part of the contract between client and consultant, in order to avoid that a client gets second thoughts. But in complex situations, it would not be sensible to fix the frame early, since it only becomes clear what is the matter in the course of the process. The possibility of reframing should then be kept open.

Nine of the interviewed consultants actually reframed the design situation in the discussed projects. In most cases, they reframed the situation as it had been framed by the client in the beginning of the process, and did

not reframe their own framing. Only in case of Nevins' project did he have to reframe the situation he had framed himself when the situation proved more complicated than he thought in the beginning. Other consultants also encountered complications and unexpected events during their design processes, but their frame was robust enough to incorporate these. An example is the multilevel frame used by Redfield in his project, comprising the redesign of the strategy, the structure, and the staffing of an organization. He started designing at the strategic level, but when he got stuck, he switched to the structural and staffing level in order to proceed, and returned to the strategic level in a later stage. Had he framed the situation solely as strategy design, he would have had to reframe it.

5.2 Constructing consistency in function and form

The construction of a new consistency consists of two complementary processes: the construction of alternative designs and the reduction of alternative designs. In section 5.2.1, these processes are discussed in general, while the subsequent sections go deeper into them. Section 5.2.2 puts the creation of alternative forms under closer scrutiny and discusses the exploratory reasoning processes that underlie it. Section 5.2.3 elaborates the processes of design node construction, which underlie the reduction of forms. Section 5.2.4 focuses on the assessment activities that are part of the construction and reduction of designs. And finally, section 5.2.5 elaborates the component of heterogeneous engineering, in particular the management of design spaces and the inclusion and exclusion of designers.

5.2.1 Construction and reduction of alternatives

Creating a new consistency in function and form may encompass a diverging and a converging movement, involving the construction of a web of alternatives and their subsequent reduction to a single design. One might expect that the diverging movement and the construction of alternatives are one and the same process, and that the converging movement and the reduction of alternatives also coincide. One might furthermore suppose that a design process goes through the sequence of first diverging, and then converging. After all, the classic design approach has made the sequence of diverging through the generation of alternatives

and converging through alternative-reduction into an important normative point, and this particular point has not been criticized in management literature. It is remarkable, then, that in only four of the twenty-one projects discussed in the interviews, alternatives were constructed as part of a diverging movement. In no fewer than fourteen projects, the construction of alternatives was part of a converging movement, and in three projects, no alternatives were constructed at all.

In the fourteen projects where alternatives were generated as part of a *converging movement*, they served as intermediate products, meant to reduce, abstract, and systematize the forms that were collected in the inventory of functions and forms. Alternatives were constructed to facilitate the making of choices in the design. These alternatives were vehicles to make the relevant dilemmas and choices visible within the global design that the client and key figures were already heading towards. Ingle phrased this use of alternatives clearly, positioning it as a basic principle of management consulting. He said:

> I formulate those alternatives in such a way that they provide different solutions for the model they are already heading towards. […] That is a basic principle for much consulting-work, 'free choice', to provide them with some valid choices in the line of action they had already chosen. Not just any choices, but choices that are really relevant, ones that ask for a thorough consideration of your wishes and intentions, and that entail a clear direction as you choose them. […] So that is the principle: take the path that they are already heading down and split it into different options, in such a way that those options reflect the dilemmas of their choices, so that a clear solution eventually emerges from it [quote 10].

In the four cases where alternatives were part of a chiefly *diverging movement*, the local practices or ways of thinking hindered the people in the organization in coming up with good designs themselves. The consultants therefore generated, or facilitated the generation of, alternative forms that were more creative, more challenging, more effective, or otherwise different from the forms the people in the organization came up with themselves. The purpose of this was not only to create better alternatives, but also to enhance the design competencies of the people in the organization and to free them from the limitations of their local practices. Osborn phrased it as follows:

> When I think about directions of strategic growth for companies, I want to give them more than just some nice ideas for products for the next year. Actually, I want to give them a kind of conceptual framework that will help them for a number of years, and make them think about fundamental customer-needs and the types of products that go with them [quote 11].

In three projects, *no alternatives* were generated or discussed. In one case, the client already had developed a clear vision of the organizational form he wanted, and to gain time in the design process the consultant and client made a shortcut and introduced this form directly to the key figures of the organization for further discussion and elaboration. So the alternatives were reduced to one from the start. In the other two cases, the consultants created an 'ideal' design, which they took to the client organization for discussion. They may have made alternatives for themselves, but not for or with their clients. Parker created an ideal, ambitious design, in line with the formulated functionalities, and then tried to get the people in the organization as far as possible in the direction of that ideal. He acknowledges that the design that will actually be realized is not this ideal design, but a compromise that is also based on the traditions of the organization and the capacities of the people involved. Nevertheless, he considers it good to start from an ideal picture, because the closer you can get to this ideal picture the better. And besides, an ideal picture shows the clients the consequences of the functionalities they formulate – if you want to achieve this, that is the best form to do it – and thus improves the thinking about the functionalities. Johnston adds to this argument that, besides being functional, it is also great fun from a professional perspective to make an ideal design. To express this fun-aspect, he said:

> I do it on my own and don't have to take the people I am working for into account. […] It is laboratory work, here a jar, there a jar, mixing, stirring, and see what you get. […] Professionally, designing is just fun to do; in the sense of 'if I were in charge there, and not burdened by the past, then this is how it should be' [quote 12].

These findings suggest some amendments to the idea that designers should make alternatives in order to diverge the number of forms. The rule only holds for cases where clients are not capable of making good alternatives themselves, and diverging is a means to improve this capability. In other situations – and this appears to be a majority of

situations consultants encounter – alternatives are needed because clients have too many ideas for designs, particularly when these ideas are incommensurable, or reflect important differences in interests and perspectives. Consultants then create a limited set of alternatives, to reduce cognitive and socio-political complexity, as an intermediary station on the road to one design. In cases where the client already has chosen a good design at the beginning, consultants can skip the whole generation of alternatives, to save time, and proceed with the elaboration and implementation. And in some cases, consultants can skip the discussion of alternatives with their client entirely and come directly with their own 'ideal' design.

To *reduce the alternatives* generated to one, rational and dialogical techniques may be used. With rational techniques, which have a central place in the classic design approach, alternatives are scored on multiple criteria that are derived from the functionalities that are to be met. The alternative that scores best is chosen for further elaboration and implementation. A few consultants did indeed use such a multi-criteria analysis as a technique to differentiate between the alternatives. But, as Clark remarked, such an analysis is rarely conclusive. At the moment of the reduction, functionalities are often not entirely clear yet, or they cannot be translated unambiguously into criteria. And besides, there is often dissensus about the weighing of different criteria, which may result in dissensus about the best alternative. In Clark's project, for instance, the working council put the employment first and opposed every alternative that jeopardized it, while the financier stressed the financial feasibility of the alternatives, and Clark himself took the strategic positioning of the organization as leading criterion.

To complement or replace rational reduction techniques, consultants use dialogical techniques. Alternatives are introduced to a group of key people, who discuss and negotiate in order to reach consensus about one of the alternatives. Particularly when the alternatives are already part of a converging movement, meant to structure the differences in opinion about forms, a dialogical way to further reduction is sensible. Not surprisingly then, most consultants used a dialogical way to reduce alternatives in their projects. But at several occasions, they complemented it with rational techniques, in particular the weighing of pros and cons of alternatives. Thompson, for instance, very explicitly brought the nuanced

deliberation about advantages and disadvantages of several options into the discussions because the key figures were firmly entrenched in their positions and the dialogue had gotten bogged down.

In the creation and reduction of alternatives, consultants may be more or less manipulative. Consider Ingle and Yates as opposite examples on this issue. Ingle tried to make all alternatives as appealing as possible, not to steer the clients into a direction he thought best, and to create a free choice for them. His project was about the construction of a new structure for seven merging organizations, and in such a situation, he said, real commitment of the participants, based on their own conviction, is more important than the precise alternative that is chosen. Yates, on the contrary, encountered a contentious situation where he thought that only one alternative could solve the problem, and therefore he nudged the participants gently in this direction. He designed six alternative solutions, of which five were systematized versions of ideas that came out of the inventory round, and one was created by himself as the best and only real solution. The first five alternatives were thought counterproductive or harmful to some of the people involved. Yates proposed them, not to be chosen, but to make visible their negative implications to the people involved, and to strengthen the position of the solution proposed by himself as the only way out. To narrow down the number of alternatives, he conducted a multi-criteria analysis, but that was only meant to rationalize the choice for his own option in the eyes of the people in the organization. The plusses behind his own option and the minuses behind the others were part of his plea. If Yates would only have proposed his own option, without mentioning the alternatives and without doing a multi-criteria analysis, the participants would probably have refused to believe that his solution was best and would have stuck to their own preferences.

5.2.2 Designing alternatives

How do consultants create new forms? How do they reason in the construction of alternatives? The discussion of reflection-in-action in chapter 2 has highlighted two kinds of reasoning, viz. case-based reasoning and the combination of what-if and if-then reasoning. These kinds of reasoning will be elaborated for organizational design on the basis of the interview-data. In the interviews, also two other kinds of

reasoning came up as important, viz. outside-in and inside-out reasoning. These will be elaborated too.

Case-based reasoning

Case-based reasoning means that consultants develop new designs from designs they created previously. They reuse forms or parts of forms from old cases in new situations. This may be an implicit process of 'seeing-as', recognizing a new situation as a situation that has been encountered before, and 'doing-as', acting in the new situation as in the former situation, without being able to articulate the similarities and dissimilarities. It may also be an explicit process, in which designers look for examples in literature, or dig up old designs out of their personal or company archive, and adapt and combine them to fit a new situation. In four of the interviews, consultants mentioned that they explicitly reused old designs. One of them, Urwick, had a large database with reusable examples at his disposal. He emphasized that reuse is not the same as copying designs. Former designs are used as sources of inspiration and as an aid for the imagination, not to copy from, since a situation is almost never the same as in the example. He said:

> Clients often start with the question 'don't you have an example that we can follow?' To which I say 'we have more than fifty examples; I will bring ten for you'. And then he thinks 'not one of these ten really fits'. But the examples are really meant as a source of inspiration, in the sense of 'it might be handy to do it this way'. […] Examples help to generate ideas, but they can almost never be copied [quote 13].

Redfield, who used old examples from his personal archive for the design of job profiles, characterized case-based reasoning as a kind of cutting and pasting. He cuts and pastes parts of old profiles and adapts them to the specific context, based on his knowledge of the organization and the wishes of the client. In his view, this is an efficient way of designing alternatives for fairly simple situations. He said:

> Designing profiles is not very complicated and mostly a job for the drawing-table. I gather together some profiles I have saved up over the years, profiles that I think, for instance, nicely describe the purpose of the job, or the personal characteristics; and then I start cutting and pasting. By that time, as a consultant, I have a fairly complete picture of the managerial level strived for, and so has the client, and I base my approach on that picture [quote 14].

In cases where people in the client organization are stuck in their local practices and ways of thinking, starting from old cases is an effective way to help them to envision forms other than the ones they usually think of. Several consultants stimulated case-based reasoning for this purpose, using examples from their own experience, from literature, or from day-to-day experience.

What-if and if-then reasoning

Another, complementary kind of reasoning that designers employ in the construction of alternatives is the combination of what-if and if-then reasoning. They construct a 'what-if', for instance 'what if we created a matrix organization', or 'what if we used the same structure here as in that other assignment', and then make moves towards consequences through if-then reasoning. Thompson, who was asked whether he recognized this description of the design process, said that it matched his own way of designing very well. He added that the process of making moves is something a consultant should initiate and carry through actively. He said:

> When you have such a basic idea, it is very important to start searching for 'what do we have?', and 'what processes become cut off or extremely difficult?' and 'how do we find forms to do justice to these processes?' This makes your basic idea more and more nuanced, fleshes it out, shows the conditions and consequences, but in so doing also makes it stronger [quote 15].

In cases where the client participates actively in the design process, if-then reasoning is particularly important. A reason for this was given by Parker, who said that clients often do not see the full implications of the forms they prefer, and a consultant can make these implications visible. Wright said that in his experience, clients often do know the implications of their preferences, but are afraid to discuss them openly and act on them, especially when the consequences affect their own position in the organization. Explicating and assessing the implications and conditions of alternative designs is also helpful to let the client form a complete and nuanced judgment about the alternatives, which improves the choice of an alternative.

Outside-in and inside-out reasoning

Two other kinds of reasoning that are relevant for the creation of alternatives are outside-in and inside-out reasoning. Outside-in reasoning means that a consultant starts from the customer or the market of the organization, and reasons from there towards relevant functionalities for the design, and then further to the form of the design. Inside-out reasoning means that a consultant starts from the vision, competencies, or internal strength of an organization, and reasons from there to the form and functions that are realizable.

A large majority of the interviewed consultants took the outside-in logic as leading. Fitting within the market environment and adapting to contingency factors is apparently thought more important than trying to stretch the market environment on the basis of the internal strengths of the organization. Quigel's reasoning in the design of an organizational structure may serve as a typical example of the primacy of outside-in reasoning. He started from the needs and wishes of the customers of the organization and the critical success factors in the market, then proceeded to the services the organization should deliver to satisfy their clients' needs, then to the primary processes to deliver these services, then to the subsidiary processes to manage and support the primary processes, and finally to the structures and coordination-mechanisms to organize these processes. The inside-out reasoning was subsequently used to constrain the outside-in movement and to fill in the gaps the contingencies left open.

To be able to use the outside-in logic, a stratification in the designs is required, in which strategy follows market-requirements, structure follows strategy, and finally, staffing follows structure. This stratification in thinking does not necessarily imply a corresponding outside-in sequence in the design process though: first design the strategy, then the structure, and finally the staffing. Redfield, for instance, started with redesigning a strategy, but switched to the design of the structure and the actual staffing, returning to the strategy in a later stage. Designing a new strategy is a long-term process in this project, and should he have waited with the restaffing and restructuring until after the strategy design was completed, the overall process would have lost momentum. Furthermore, he considered it important not to wait too long with a restaffing, especially in key positions, because the people who fill them have to lead the

organization into its future, and therefore they should have influence on the shaping of the organization and the strategy. This last argument involves, to some extent, an inside-out logic, from staff to structure and strategy. Other interviews show that Redfield's example is not an exception. Consultants often go back and forth between design levels, and when restaffing of key positions is an issue, inside-out reasoning plays an important role.

An interesting point concerning the use of outside-in reasoning is that the meanings of the words 'market' and 'client' are stretched by several consultants to be able to uphold the outside-in logic. Financial and job markets are commonly added to the market in which the products or services are sold, and Nevins even added an 'internal organizational market' to denote that the headquarters of a cooperative organization had to take into account the wishes of member organizations. The term 'client' may also be stretched to include other stakeholders such as suppliers, financiers, employees and government agencies. This suggests that outside-in reasoning is part of an ideology shared among many management consultants, in which adaptation to the market and the client are central values, and which is upheld even if it requires stretching of the meaning of the terms market and client.

5.2.3 Constructing design nodes

A design situation can become very complex, with many alternatives, consequences, conditions, and appreciations open at the same time. Even if a designer can string out a web of great complexity, it is impossible to keep all possibilities open. Therefore, points must be fixed at a certain moment by constructing design nodes – decisions that have binding implications for further moves. By fixing one design node after another, a path is created through which the range of potential forms and functions narrows down.

Without the construction of robust nodes at some time in the process, design processes are impossible. Valentine told about a case in which he tried to make a strategic and structural redesign for a client who changed and reversed his view on the strategy, structure, and staffing all the time, and would not make a decision. Thus, it was impossible to construct a consistent design, with a structure and staffing that matched the strategy,

because his basis for judging consistency was questioned continuously. According to Valentine, it was of no use then to continue the process, and he quit. In the interview, he said:

> The moment to quit, as a consultant, is when you can't continue with the content, when you can't reach consensus, when the client is not able to make a decision and leaves all options open. Then the basis to take a next step becomes too unstable. You can try it for a while, but soon you will lose courage and realize 'this just isn't working, we are back at square one' [quote 16].

Important design nodes, such as the choice for an alternative form, are rarely constructed by consultants alone, because they lack the formal power and authority to make their choices into decisions that hold within the organization. Depending on the specific socio-political constellation of an organization, the client, his superior, or a group of key figures makes the important design decisions. When the locus of power is situated within the group of people who make the design, they construct the nodes. When it is located outside that group, the construction of nodes has to be confirmed separately. Urwick's case is an example of the latter. The designs were made in a team with people from the organization, but they were always sent to the top-management for approval. These never made any amendments to the design, but their approval was necessary to give it 'force of law'.

The interviews revealed three different ways to construct design nodes: through rational analysis, through consensus, and through experimentation. Rational analysis means that, if the conclusion of an analysis is that something is the case, or the best thing to do, then this creates a node. A possibility receives a stamp of quality from the analysis and thus becomes a certainty for the rest of the design process. Writing the analysis and conclusions down in a report enhances the status. Design nodes can also be created by achieving consensus about a certain point with the client or in a group of key people. If, after discussion, they agree with a certain diagnosis or a certain form, then this is established and used as a fixed point for the rest of the design process. And finally, experimentation can create nodes by showing that a certain line of action yields good results. A possibility becomes fixed when it has proved itself to be productive in practice, and sometimes because all other possibilities

have proved less productive. The success of an experiment diminishes reversibility.

Design nodes can be constructed through analysis, consensus, and experimentation. Possible choices in the design or the design process are not questioned anymore when rational analysis has shown them to be true or the best, when the most important people say they agree with them, or when they have been shown to work in practice. These three ways of constructing nodes may be used in varying combinations, depending, among other things, on the content of the project, the socio-political constellation, and the style of the consultant. Mostly, one of the three ways of constructing nodes is given primacy. Consider Clark's, Ingle's, and Fannon's projects as typical examples for each of the three ways. In Clark's project, a strategic redesign of a semi-governmental organization under intense political pressure, strategic analysis was taken as leading for the main decisions, because the continuity of the organization was at stake. Clark also tried to reach wide consensus about the priority and the conclusions of the analysis, since the management lacked the power to push through their own ideas, but he objected to any consensus, for instance within the working council, that did not fit with his rational analysis. Ingle, assisting in designing a structure for merging organizations, focused on the construction of consensus-based nodes. According to him, in a merger it is more important that all participants agree about a new structure than that a structure is rationally shown to be the best, nor is there time to experiment, since parties would then drop out. Only if consensus were to arise about a structure that evidently could not work well in practice, Ingle would have blocked it. Experimentation was taken as leading in Fannon's project, the elaboration and implementation of a new structure. In a series of simulation games, he created an open process, with all employees involved, in which nodes were created through learning and experimentation.

Nodes may also arise silently when a designer sees no alternatives for his 'what-if' and thus fixes something by taking it for granted. If this happens for a large part of the design, the design becomes mainly a product of the unreflective practices or standard ways of thinking of the designers. Management consultants who are hired to assist in changing practices focus attention on the process of constructing nodes, enhancing their client's reflexivity about their premises and automatic choices.

5.2.4 Design spaces

Heterogeneous engineering encompasses the alignment of cognitive and socio-political elements. In organizational design practice, this alignment mainly boils down to the establishment and management of design spaces in which functions and forms are constructed. These design spaces show dynamism in the course of the process. Almost none of the interviewed consultants had obtained a mandate to make a design individually or with a small team, within a design space that remained stable and protected during the whole design process. Managing the design space involves the establishment and closure of a series of subsequent design spaces, possibly with different participants each time. For some parts of the design process, the consultant may occupy the space alone, for other parts it may include the key figures in the organization, and for still other parts a large group of people participating in project groups may be involved. In the interviews, especially working conferences with key figures were highlighted by the consultants as important design spaces, since in these conferences, the people with power in the organization construct important design nodes and create a mandate for subsequent design spaces. Since these working conferences are crucial in many design processes, consultants manage them most consciously and carefully. Therefore these occasions – as they occurred in eleven of the discussed design projects – will be discussed in this section to elaborate the management of design spaces.

The interviews showed that *establishing and closing a design space* in a working conference involves rituals. In order to institute a space, creating the right ambiance is important. Evans told that going to a secluded place such as a hotel in the woods or on the moors, far away from the daily work, helps to create a space ‘where it will happen’. One may reinforce this feeling, as Lewis did, by making the participants agree not to leave the place until certain results were achieved, the so-called ‘pressure cooker’ method, or ‘white smoke’ method (referring to the papal elections). Lewis used this method because he suspected that the participants would want to postpone the construction of important design nodes endlessly.

Establishing a design space also requires the performance of opening rituals at the conference itself. A consultant may start, as Sawyer did, by

giving a presentation in which the importance of the conference-subject is enlarged and dramatized. One may also start with a ritual round, in which all participants say publicly why the subject of the conference is important to them, and what they expect from it. Such a ritual is important and one should take time for it, Ingle said, because if not all participants are imbued with the purpose and importance of what they are going to do, the conference may turn into a free-discussion space, where no design nodes will be constructed. The content and specific purpose of the ritual depends on the situation. In a conference in which is decided upon the new structure of merging organizations, as organized by Ingle, the ritual should make the participating managers aware that they represent their organization and cannot speak without making commitments. In a conference in which a conflict is to be resolved, it is important that the participants state openly that they are troubled by the situation and want to resolve the conflict. In a conference about a downsizing, the participants have to state that the situation is dire and that they agree with the downsizing as such. Through these rituals, the participants of the conference commit themselves to the design process and position themselves as co-designers.

Closing the design space at a working conference also involves rituals. It is important to perform a closing ceremony, as Sawyer said, by summarizing the outcomes of the conference, and by stating, several times, which decisions have been made, and, in case of full consensus, that all the participants agree. Part of the closing ritual is the establishment and the creation of a mandate for a subsequent design space, which is done by making agreements about who is going to do what in which setting. One may decide on a follow-up conference, for example, or on a series of project groups that will tackle the tasks that have been identified during the conference. This is important to keep the design process flowing and to prevent key figures from quitting or withdrawing their commitment in the meantime.

A central element of the management of design spaces is the *inclusion and exclusion* of people in and from the design spaces. Processes of inclusion and exclusion give some people the opportunity to influence the design cognitively and politically, while withholding that opportunity from others. These processes start with the decision of whom to include in the inventory interview round, deciding whose ideas and interests are taken

seriously and whose commitment is sought, and proceeds in the course of the design process, in particular when participants are selected for working conferences and project groups. In the decisions around whom to include, cognitive as well as socio-political arguments play a role. People may be included because of their knowledge or because of their power to block the design process if excluded. Concerning the inventory interview round, it has been argued that socio-political reasons tend to be dominant. The same goes for the working conferences where important design nodes are constructed.

Besides the client and the key figures, employees and other stakeholders of the organization may also be included in design spaces. In particular, the inclusion of the consultants' internal counterparts such as personnel managers or internal consultants is seen as important, as emphasized by Fannon and Quigel. These people have knowledge of both the disciplinary field and the organization. They speak the same language as the management consultants, may be willing to work with them because they can learn from the experience, and form a valuable source of information about the organization and the people in it. The inclusion of employees other than these internal counterparts may be important too. Several interviewed consultants put emphasis on the significance of including employees in the spaces where aspects of the design are created that lie close to their daily work and concern them directly. If consultants want to keep a design space compact, for instance in the primary interview round or in a working conference, they may include employees indirectly, through representation by someone of the working council or trade union. But they may also include them as actual co-designers in parts of the design process. Valentine argued that including them on aspects that concern them directly enhances the chance that the design will really work, firstly because the employees know best what is realizable – metaphorically, they live on the crossroads of the real world and the world of the design – and secondly because their co-designership increases their commitment to the design, which makes it unlikely that they will block its implementation later on. Redfield even made employee-participation one of his credos. For the detailed or lower-level designs, he leaves the design process mainly to the people whose work it concerns. He said:

> I strongly believe in effecting change from the bottom up. I strongly believe in involving professionals, workers, in designing their own changes. When you have defined the strategy, the hull of the organization, and the constraints, then I would […] choose to let the people who actually do the work in the organization, to let them design their own work [quote 17].

Inclusion of some also implies the exclusion of others. People may be excluded because they are not regarded as key figures, because they lack certain expertise, because they are thought to be insufficiently enthusiastic about the design process, or because it is considered just more efficient and less complicated not to include them. The decision of whom to include or exclude is very complicated and delicate. Ingle's case provides a good example of the difficulty of the decision and the relevant arguments. He pondered whether he did the right thing by not including the boards of directors in the early stages of the design process. Including them would have complicated the process and would probably have implied a loss of momentum, as he had experienced in a similar case, but excluding them had the risk that they would resist the outcome of the design process. He said in the interview that, should there be signs that they will resist, then he would have to include them after all, in order to repair the damage. At the time of the interview, he could not say yet whether he had made the right decision.

5.2.5 Assessment of the design and the design process

Consultants assess the quality of the designs and the design process on several occasions. In the interviews, two different kinds of assessments were mentioned by the consultants. During the design process, evaluative questions such as 'is it a good design, and is the gap between function and form closing desirably?', 'is the design going to be implementable?', and 'is the process going well or should we intervene?' are being asked, in order to adjust or improve the design and the design process. After completion of the design process, consultants assess their work with evaluative questions like 'did we make a good design?' and 'did we do it in the right way?' to form a basis for learning, to strengthen their self-confidence, or just out of curiosity. The first kind of assessment can be called 'formative evaluation', and the second kind 'summative evaluation' (Stake, 1967).

In most of the projects discussed in the interviews, *formative evaluation* is an integral element of the design process, part of the day-to-day conversations of the consultants with their clients. The evaluation of the design and the design process fits quite naturally into the agenda of a meeting between consultant and client, because they both want to make the design process into a success, and its progress is their evident concern. Urwick phrased it like this:

> You often talk about the project with the client, because it is an exciting process for him too, and we are all hoping for a happy ending. That implies that we often talk about 'is it going well, or not'. This is also important for the client, because if things go wrong, he will be damaged within his organization too. That implies that he will always monitor the process closely. And if the process doesn't run smoothly, the client will speak up immediately, since he also picks up on comments from the people in his environment [quote 18].

Setting up regular meetings with clients to talk about the progress of the project is a way to build an evaluative infrastructure through which the formative evaluation becomes embedded naturally in the design process. But there are other, complementary ways to contribute to this infrastructure. Including internal experts and key figures for the implementation in the design team is a way, since this implies that during the design process, people are present who can and will judge certain aspects of the design and the implementability of the design. When these people are not included, or when there are so many uncertainties in the design that the quality or implementability cannot be guaranteed, a special formative evaluation stage may be introduced into the design process. This was the case in Grant's project. He conducted a pilot of his restructuring project within only one office of the organization, in order to learn about the implementation and to test whether the design worked out well.

To be able to assess progress, the evaluative infrastructure also has to incorporate devices for monitoring the design process. Performance indicators may be established to measure the progress, and steering committees, hornet groups, or supervising councils may be created to follow the design process critically. It would be a risk to leave the assessment totally to the judgment of the designers themselves. Designers want to make a design work and to establish something, while the evaluators must have the independence to be able to conclude that the

design does not work to satisfaction, and that the design process should be stopped or redirected.

Summative evaluation, the assessment of the quality of the design and the design process after the fact, receives less attention from the interviewed consultants than formative evaluation. A reason is that during the design process, consultants frequently form an opinion about how it is going, so afterwards they already have an idea about how it went and think they do not really need an extra summative evaluation to assess the quality of their work. A reason to be interested in a summative evaluation is to determine the success of the design after implementation, because – as Urwick and Clark emphasized – only then you really know whether you did a good job. However, a summative evaluation concerning the success of the design is often problematic, because the success is not only dependent on the quality of the design and the work of the management consultant. For this reason, Valentine is rather skeptical about the possibilities and usefulness of such summative evaluations. He said:

> It remains difficult to measure the effects of your actions. You should try to remove what was not working well at the beginning, but that does not imply that what has actually changed corresponds exactly with what had to be removed. Often, a more-encompassing problematique is tackled. Mostly you cannot measure it in terms of 'this was the case, this is what we did, and this is the result'. And it is doubtful whether it is of any use to try to find out. Evaluations are useful to provide guidance about how to proceed, and not so much to find out whether it helped [quote 19].

Nonetheless, most interviewed consultants do look for some indicators of the quality and success of their designs. The most commonly mentioned indicator is the satisfaction of the client. One could assume that if the client is satisfied, then the design will probably be all right, and if the client is not satisfied, a bad design might be a reason. According to the interviewees, though, this is a rather weak indicator. First, the client's satisfaction concerns the work of the consultant as a whole, in which the quality of the design is one aspect, but not necessarily the most important. Second, client and consultant may disagree about the quality of the design. In those cases, an unsatisfied client is not a good indicator of the quality of the design, at least not in the eyes of the consultant. Third, this indicator also depends on whom consultants consider their client, or whose satisfaction they deem relevant. This may be just the

person who hired them, but it may also include key figures and other members of the organization. When more people are included, there may be dissensus concerning the level of satisfaction, since it is not always possible to please everyone, especially in socio-politically complex cases. Fourth, the client's satisfaction may change over time, when more effects become visible, or when the appreciation of the already visible effects changes. This time-factor may be incorporated, as Urwick does, by evaluating the customer-satisfaction half a year after the end of the project, or as Valentine sometimes does, after four or five years, but, of course, customer satisfaction may also change after those periods. And finally, clients may not show their satisfaction or dissatisfaction openly to the consultant. Only when clients hire a consultant again, or recommend them to others, they were undoubtedly satisfied, as Urwick, Valentine, Clark, and Wright stressed.

Other indicators may be used to complement the assessment of customer-satisfaction and the consultant's own opinion formed during the process. They may look at 'hard', measurable indicators such as the increase in profit or productivity, or at 'soft' indicators such as what newspapers and magazines write about the organizations in which they worked. Or they may try to encounter people who can tell them how things are going in the organization, as Quigel said, for instance at supermarkets, conferences, or receptions, in order to assess the success of their work. A hard indicator, mentioned by some interviewees, is whether the consultants did or achieved what they promised at the beginning of the process, in terms of efforts, results, or conditions such as the budget and time schedule. This indicator only works in situations with clear-cut requirements, conditions, and expectations. In complex, ambiguous, and uncertain situations, consultants may promise no more than that they will do their utmost in the process, which will not lead to an informative indicator afterwards. In conclusion, one might say that although summative evaluation has some relevance and is often attempted by consultants, it remains difficult and in many cases inconclusive.

5.3 Plans of approach and methods

In this section, the bricolage component of designing is discussed. In particular, the use and creation of methods and plans of approach are elaborated. In traditional design methodology, methods are generic

phase-models, and plans of approach are 'n=1' phase-models, prescribing courses of action for a class of projects and specific projects respectively. The background diagnosis of this study was that these phase-models are not used in practice, at least not as the prescriptive statements they are supposed to be. The survey, discussed in chapter 4, has generally confirmed this diagnosis. It concluded that, with only a few exceptions, consultants do not follow phase-models. Many of them use phase-models, but then more importantly for the external functions of communication and project-management. If phase-models are used as guidelines, then they are applied flexibly by combining, skipping, or switching stages. To elaborate these survey results, this section goes deeper into methods and plans of approach, and discusses the purposes and reasons for which they are used, what they look like, and in which ways they are created. Section 5.3.1 deals with the functions, forms, and construction of plans of approach, while section 5.3.2 elaborates the same for methods.

5.3.1 Plans of approach

Management consultants make plans of approach to demonstrate in which way consistency in function and form is to be constructed in a concrete situation. Such a plan prescribes more or less extensively the steps to be taken in the design process, the people to be involved, the results to be expected, and the time-schedule of the process. It is a design for a design process.

Functions of plans of approach

A first function of plans of approach is to be a *guideline* for the content and the sequence of the activities to be carried out in the design process. Only two consultants, Quigel and Lewis, mentioned that they used their plans for this purpose. According to them, the plan helps them to see the line and the progress in the design process, through all the frenzy, and saves them from skipping things, adding things, going too quickly, or going too slowly. They added, though, that this function as a guideline is not the main function of the plan.

A second function of plans of approach is that they *reduce uncertainty* with the client and the client organization concerning the design process. Several consultants mentioned this function as relevant. Quigel and

Thompson even emphasized it as the primary function of plans of approach. They said that design processes are often perceived as uncertain and somewhat scary by clients, especially in socio-politically complex situations. By stating what is going to happen at what moment and who will be involved in which way, the insecurity is made manageable. The plan tells what they can expect, where they can have influence in the consecutive steps, and how they can check whether the design process is carried out as advertised. As such, the plan helps to enhance people's trust in and commitment to the design process. Especially people who represent others, such as members of working councils or trade unions, tend to need a plan of approach to become committed, as Thompson and Lewis argued, since they need to explain or defend the design process to their constituency.

A third function of plans of approach is to help consultants to *acquire a position* in the design process. For as far as the role or the activities of the consultant are specified in the plan, this gives them the legitimation to do things in the organization, such as distracting people from their normal work for interviews or project work. Lewis argued that it also legitimizes consultants to leave things to others or to be absent for a period of time. According to him, there are people in organizations who wrongly expect that the consultants do everything and are present in the organization during the whole design process. Furthermore, stating the consultants' role and activities makes their added value in the design process explicit. Consultants can use this to claim (part of) the credit for the outcomes of the design process afterwards, and to reaffirm their agency, their ability to make things happen. And when their activities are coupled to the budget of the design process, a plan of approach also shows the client what consultants do for their money, thus legitimizing the consultants' fees. Furthermore, the clients' consciousness of the money they pay consultants for each activity may enhance their commitment to the design process, and, as Quigel said, prevent them from changing course and giving consultants additional work too easily. And if they do, consultants have solid ground to ask for extra fees.

A fourth function of plans of approach is their use as a *project-management* tool. Especially in large projects, with several consultants and many people from the organization involved, a plan of approach serves as an instrument to coordinate and discipline, as it specifies which activities are

to be carried out and when the results of these activities are to be available. According to Lewis, the project-management function of a plan of approach becomes more important when more people are involved in the design process. And he added that the same applies when the time pressure on the design process increases.

> In situations with time pressure, a project manager needs the plan of approach, to put both himself and his colleagues under pressure, in the sense of 'it must be finished on Friday, because on Saturday, it must be over there'. You also need it for your client, to make him keep his promises, in the sense of 'I will bring you this today, but then it should be ready on Monday to be able to present it on Tuesday.' If the time pressure is this high, it is good to make clear agreements, because otherwise you run late if the client does not stick to his commitments [quote 20].

A fifth, somewhat prosaic function of plans of approach is to *manage capacity* within consulting firms, as the availability of consultants can be matched with the activities they have to carry out for the different projects they are working on. Valentine told that his secretary always keeps a keen eye on the progress of his projects and warns him when it appears that more than one important and time-consuming job requires his attention at the same time.

A sixth function of plan of approach is to serve as a *medium for thinking* the design process through. Making a plan is a good occasion to deliberate about the process, in terms of activities, results, pace, the inclusion of people, and the construction of design spaces. Putting it down on paper, adding, deleting and changing elements until it all fits together may even be more important for consultants than the resulting plan itself. Valentine, for instance, said he did not need the guidance of the plan of approach because he had made that plan himself. After constructing a plan, he knew how he wanted to approach the design process and did not need the plan itself anymore to remind him.

A seventh, related function of plan of approach is to serve as a *medium for the communication* about the design process among the designers and other people in the organization. A plan, as a description of the process, can be discussed, amended, adjusted, approved, or discarded. Quigel argued that discussing a plan with people in the organization is important, because this works as a check on the completeness and doability of the process

design, and, besides, enhances their commitment to the design process. Thompson stressed that it is particularly important to include the client and key figures in the discussions about the plan of approach, because a plan makes their intentions concrete and helps them to find out what they want to achieve, and also because discussing a plan makes them more conscious of their role and their responsibilities in the process, and enhances their commitment.

An eighth possible function of a plan of approach is to serve as one of the instruments to *change local practices*. Making a plan of approach is an intervention in itself. If an organization is used to working with meticulous plans for all its projects, working with an elaborated plan of approach in the organizational design process reinforces this practice. And when this practice is one of the things to be redesigned, then working without an elaborate plan is a good way to start. A process in which organizational practices are to be changed from A to B, should, in terms of Thompson, itself be designed according to the laws of B, not according to the laws of A. Or in the words of Johnston:

> If I am hired by an organization that thinks it important to use a phase-model, then I make a phase-model. If I think it to be a big problem that they want to do everything with phase-models, I say to them 'shouldn't you try for once to work without a phase-model, to experience how that works'. If I consider such a culture-shock non-productive, then I follow their language, because I think the result is more important than doing something deviant [quote 21].

Forms of plans of approach

Plans of approach contain a description of the activities to be carried out, and may also describe the intended results, the duration, and the organization of these activities, as well as the ways in which main decisions will be made, the role and activities of the consultants, and the number of days they will spend on the project. Relevant issues concerning the forms of plans of approach, as they appeared in the interviews, are the elaboration of the plan, the issues that are addressed, and the way in which it is presented.

To what level of *detail* should a plan of approach be elaborated? There are situations where consultants work with only a limited plan or no plan at all, and situations where they write extensive plans. The interview data

suggest that consultants do not make their plans more detailed than they have to. Sawyer, who has left consulting, had not made a plan of approach since he had become a manager. According to him, making a plan of approach is a consulting ritual, which may have a function in the relationship between consultant and client, but not so much for the cognitive side of the design process. This is remarkable, as one might assume a relation between the cognitive complexity of a design situation and the usefulness of an elaborate plan of approach. In more complex situations, it might be more important to think about all the difficulties and details of the design process, and thus making a meticulous plan is a good occasion to do so. Neither Sawyer, nor the other interviewed consultants support this assumption. If making a plan helps to think through the process more thoroughly, this is considered a by-product. Thompson is very explicit: the extent of detail of a plan depends on the socio-political complexity of the situation, not on the cognitive complexity. As an example he told that for one of the most complex projects he did, he only made a very global plan of approach of less than one sheet of paper, since the socio-political complexity was low and he enjoyed the trust of the management. Grant considers the making of detailed plans a waste of time. He said:

> You should never work a plan out in too much detail. It costs energy, and you focus your energy on thinking about what could go wrong, and that's a waste. It often takes a lot of effort to prevent people from putting in too much energy at the beginning of a process by thinking it over meticulously. It only creates false certainty, because once you begin to make some progress, you realize that you are often in a different place than you thought you would be. Only in some cases, you can't avoid it, purely as a feint, because a key figure needs the reassurance of a detailed plan [quote 22].

In some cases, elaborate plans of approach are made. To give an impression of elaborate plans and the issues they may contain, two contrasting examples will be described, one plan by Valentine and another by Thompson. Valentine had written a plan for a staff audit, which was part of a cultural change program, a fairly standard project for him. It described in two pages a procedure with the following ten steps[44]:

[44] Elements that might give away the identity of the consultant or the organization have been removed.

1. Establishing a supervisory committee, preferably consisting of members of the management team, the head of the personnel department, and the project-manager of the consulting firm. The task of the committee is to monitor the process, to serve as information desk, and to stimulate and facilitate useful initiatives of persons within the organization, such as […]
2. Establishing the plan of approach. Proposed is a compact process, starting with […]
3. Providing information to the participants of the audit. The consultant coaches the internal information, a.o. on information meetings and through e-mail.
4. Start of the audit. Participants write a short memo as preparation.
5. The audit by 2 consultants, in 2 interviews; the first lasting 1,5 hours, the second 1 hour.
6. Drawing up a report with the following categories […], based upon the insights obtained in the interviews.
7. A feedback meeting with the participants about the audit report, taking about an hour. Subject is whether they accept the report. If the participant does not accept the report, it wil be destroyed if needed.
8. The consultant hands over the audit reports to the management, possibly with the participants' comments.
9. The manager discusses the personal development with the participant, in the presence of the consultant. Purpose is to discuss steps that are important for the further development of the participant.
10. The consulting firm analyses the total potential of the staff.

N.B. Reports remain confidential [quote 23].

This plan of approach concentrates predominantly on organizational and procedural matters, such as the composition and tasks of the steering committee, the duration of the interviews, and the table of contents of the audit report. It refers to the standardized elements of the process and does not go into situation-specific elements. Give or take a few details, this plan might be used for any auditing process, and so it is. Besides, the plan sheds little light on the strategy that underpins the concrete activities. In Valentine's tender, the underpinning strategy was described separately, in seductive terms, as systematic, integral, and respectful, and with many benefits for the client. This description of the strategy was meant to persuade the client of the value of the method, the plan of approach was meant to make him feel that the method is doable.

Thompson, in contrast, wrote a more situation-specific plan of approach for a structural redesign in a complex situation. In six pages he wrote a

proposal for a phased approach of the design process, containing the following phases:

1. Communication in the organization about the outline and purposes of the process.
2. Analysis, development, and decision-making about the starting points for the future organization.
3. Analysis, development, and decision-making about the future top-structure of [X], about the structure of the staff departments, and about the competence profiles of key figures.
4. Staffing key positions in the top-structure.
5. Analysis, development, and decision-making about the future structure and the management-structure in the institutes, about the competence profiles of key figures, about the cooperation between institutes and the headquarters, and among the institutes.
6. Further staffing and organizational development of the institutes [quote 24].

For each phase he described the issues to be tackled, the setting in which this would be done, the people to be involved, the decisions to be made, the communication to the organization, the resulting products, the function of the product on whole, the overall planning, and the estimated time he would spend on the project. The plan contained roughly the same elements as Valentine's plan, but was more situation-specific, shed more light on the content of the activities, and lacked a separate section that explained his strategy persuasively. An explanation of the differences may be that Thompson's plan of approach was based on an extensive study, not only on the intake, so he possessed a more solid basis to write a context-rich and situation-specific plan. And besides, this plan was predominantly meant to build trust and certainty in a socio-politically complex situation, not to organize the project. Apparently, the form of the plan depends considerably on its functions.

The way in which a plan of approach is presented also relates to its functions. When presenting the plan to the client in his report, Thompson used a long text with cautious and tentative language, full of suggestions, proposals, and options. But when he presented the same plan to the rest of the organization, it was shaped as a bulleted point list with assertive language. In its first form, the plan was meant to be discussed, in the second form, after acceptance by the client, it was meant to inform. A general point concerning the presentation of plans, argued

by both Valentine and Thompson, is that the choice of words is very important. Words like 'integrity' or 'resistance to change' should be avoided, since they could invoke thoughts like 'could we doubt his integrity' or 'would we resist change', thus leading to unrest, distrust, or indignation. Another example of the careful use of language was given by Quigel. He told that in a certain case, he saw at the start of a project that some of the key figures did not function well, and that their behavior would be a point of discussion somewhere in the process. But one cannot put that in a plan of approach, because then the key figures would never agree with it. So he put it in neutral terms as 'working on solutions', which created an opening to discuss key figure behavior but did not turn them off in advance. Thus, sensitive issues should be mentioned in a plan of approach, because otherwise consultants would deceive their clients, but they should be couched in neutral words, of which the real meaning only becomes clear at the appropriate moment.

Constructing plans of approach

Constructing a plan of approach entails a major dilemma: consultants have to tell their clients 'we will do it this way' at a moment when they actually know too little about the situation. When they make a plan of approach, at the beginning of the design process, they are still uncertain of many things and cannot see the whole process clearly yet. In terms of Kelly, fixing one step is already a big deal, fixing two steps is tempting fate, and fixing three steps is playing God. And in terms of Redfield, consultants do not know how a design process will develop, but they do know that it will not develop in the way they think it will when making their plan of approach. One has to go through the process in order to learn what will happen. Quigel phrased the situation as "the longer you are under way, the more you know, and at the end you know the most, and then you leave."

How should one cope with this dilemma of uncertainty when constructing plans of approach? Quigel, Grant, Thompson and Redfield argued that a plan should not be made more detailed than strictly necessary. If you are not certain about the details, do not put them in the plan. Rather, work with a global plan and fill it in along the way. And if you do put them in the plan, add an 'uncertainty clause' to indicate that things may work out differently than stated in the plan. Thompson, for example, described in the introduction to his plan of approach the

deviations from the plan that might prove necessary, and the way in which he would deal with them:

> It should be noted, of course, that in the course of the process it may appear sensible to accelerate the process or to slow it down, or to handle particular subjects with priority first. Therefore, it is desirable to have regular informal meetings between the client and the external consultant about the progress and eventualities [quote 25].

More specifically, Thompson told in the plan that it could become apparent that he would have to spend more or fewer days than estimated in phase 2, that phase 4 could be put forward if certain conditions would be fulfilled earlier than expected, and that his planning of phases 5 and 6 was only tentative, because he cannot oversee them yet. With these remarks, he pinpointed his uncertainties, and could make an elaborate plan, which he thought necessary in that situation, without creating false certainty for himself or his client.

Because of this uncertainty, the circumstances may dictate changes in the plan at some stage in the design process. These deviations from the original plan of approach should be discussed with the client. Especially when a deviation requires more input from the consultants, and thus has financial consequences, it is important to discuss whether the deviation is worth the extra costs. Consultants may be hesitant to discuss deviations, since the client might see it as their fault that they did not oversee the process correctly, and this might weaken their position in the organization and limit their ability to bring the design process to an end. But according to Thompson, this is not necessarily the case. A deviation on good grounds may even enhance the client's trust in the consultant and in the design process. He said:

> It is also evidence of the competence of a consultant that he does not act strictly according to a recipe book, but that he constantly monitors the progress of the process. That is the advantage. So even when you deviate based on good grounds, it increases the credibility of the overall process and of you as a consultant [quote 26].

Only in simple, standard situations, at least from the consultant's point of view, the mentioned precautions are not required. Valentine, for instance, did not think it necessary to put an uncertainty clause in his plan of

approach, and Urwick, doing rather standard design processes with a standardized method, did not need one either. He even seemed glad he could do without one, given his enthusiastic exclamation:

> It is just an industrial process, it is so orderly. So it is predictable and controllable; it's all fantastic [quote 27].

5.3.2 Methods

In traditional design methodology, methods have the form of a generic phase-model and the function of guiding designers. In this section, these as well as other functions and forms of methods will be discussed as they are encountered in practice. In addition, attention will be paid to the ways in which methods are created. But before starting, a remark about the use of the term method is relevant. The term method will be used for phase-models as well as for other models that are used in combination with these phase-models. A clear distinction between phase-models and other, more content-related models is not possible, because consultants mostly use hybrids. To give two examples: Urwick's phase-model for administrative organization design was attached to a database with reference models, and Parker's diagnostic method was an elaboration of the well-known 7S's model into a series of questionnaires. Most consultants did not make the distinction either in the interviews. Some consultants used methods, models, and phase-models interchangeably, while others talked mostly about 'methods and models' as a tandem-term, mentioned together to denote a single category of resources. Therefore, the term method will include phase-models as well as other models.

Functions of methods

A first function of methods is to give management consultants *guidance* in the design process by telling or suggesting to them what to do or what elements to take into account when framing a situation, making a plan of approach, or constructing a design. As a prescription, a heuristic, or a memory aid, methods direct the attention of consultants more or less compellingly to certain activities or issues. Most interviewed consultants said that they use methods as heuristics, to get ideas in their reflection-in-action, or as memory aids, to make sure that they do not forget or overlook important things. But none of the interviewed consultants said that they followed their methods as strict prescriptions. They all made the

guidelines of the methods subordinate to their own judgment. Only Valentine followed a method in the discussed design project, but since he developed that method himself, the method rather followed what he did than the other way around. Some consultants added, though, that methods may serve as prescriptions for juniors, since juniors lack the experience to rely upon their judgment, and following a method then safeguards them from making unnecessary mistakes.

A second function of methods is to *enhance the communication* with the client and the client organization about the design process. In the interviews, this function was brought to the fore explicitly. Good methods provide a logical and generic structure for the stories consultants tell about what is wrong in the organization and about what should be done to make a design. They serve as vehicles for convincing storytelling, in reports, presentations, and discussions about the design and design process. This implies that methods are considered subordinate to the stories consultants wish to tell. Yates, for instance, said that methods should support the points he wants to make. Sawyer told that his favorite model is his favorite because he can tell all the stories he has with it. And even Valentine, the only interviewee who can be said to have followed a method, emphasized that his method is a servant, meant to support his stories, not a master.

A third function of methods, related to the second, is to help consultants in the *acquisition* of projects. A method can support consultants in telling their clients in advance how they will deal with the design situation, in order to persuade clients to hire them. Among the interviewed consultants, two different ways for using methods in the acquisition were encountered. Depending on the consultant's first-round assessment of the complexity and uniqueness of the situation, methods were brought to the foreground or pushed to the background. Consultants who regarded a situation as clear-cut and thought their method suitable to tackle it, in particular Urwick and Valentine, put their methods up front. During the intake, they told their methods to the clients, to show them how they deal with 'these kinds of situations'. And based on the intake, they elaborated and specified their method in a plan of approach, which they put in their tender. Valentine has also made a leaflet about his method, which he sends to potential clients in advance. In contrast, the consultants who regarded the situation as complex and unique – and this was the majority

of the interviewed consultants – kept their methods more in the background during the intake. They put the peculiarities of the client's question up front. They argued that putting the method up front would bias them too much in the exploration of the client's question, and besides, would give the client the impression that they disregarded the specifities and complexities of the situation. But the availability of methods adds to the credibility of consultants, since it shows clients that they have reflected on certain kinds of situations and have acquired experience in dealing with them. In these situations, methods may also be used to make a plan of approach, but this plan is then tailor-made, based on both methodical and situational knowledge, and constructed after the intake or a preliminary study.

A fourth function of methods is to serve as part of a *common language* to talk about the design and the design process. Within an organization, a method may structure and coordinate the efforts of the designers. This function is especially important in collaborative design projects, with people from the organization involved. When a method is successfully adopted as a part of the common language, it may even become the icon of the design process, as happened in the cases discussed by Sawyer and Redfield. The design process may then be seen as, for instance, 'implementing the EFQM model' or 'doing Business Process Redesign'. For consultants, a good fluency in the language of consulting methods and models is essential in order to be able to understand other consultants and clients. According to Lewis, knowledge of methods is not so much a requirement for being a good designer, but a lack of methodical knowledge makes a consultant insecure, since everyone else talks in these terms. From his own experience, he told:

> When I came to work with [firm X], I found out that I actually knew very little about consulting work. When people would start talking to me about the 7S model, or the BCG-matrix… I had never heard of them. That made me very insecure for a couple of years. I was a very good consultant, but had absolutely no methodical knowledge. Just then, a post-doctoral course for consultants started, and I went to attend it. Very rapidly, I became acquainted with all the methodical knowledge I had lacked, with the models that are used in consulting work. That took away a big deal of my insecurity, because then I knew what those people were talking about, and that was very pleasant. But I realized that I had done my job quite well, even when I still lacked that knowledge [quote 28].

A fifth function of methods is to *rationalize* and *justify* the design process and to *objectify* the design. This may be relevant during as well as after the design process. During the process, methods can be used as weapons against the dominance of political games. Parker emphasized that, because of their generic and logical character, methods give the consultant a rational anchor in the discussions about the design and the design process, which helps him to bracket interests for a while and to address the content of the design. Nevins acknowledged that socio-political processes always play a part, but stressed that if they dominate the design process, this often results in bad designs and a degeneration of the organization. He said:

> If you allow the process to be only political by not making it transparent and objective, then you run two big risks. First, you may just make a stupid decision, with the wrong results. Second, it may lead to a certain degeneration of the organization, that people put up with the fact that these processes are purely political, and I think that, in the long-term, that is not good for the strength of the organization. So, laying the groundwork for those processes with objectifying interventions is good for the organization. I think it has to do with my assumption that you should be able to account for your decisions to others and to make them visible. Most organizations do not benefit by favoritism and cronyism. There should be a reasonable amount of objective decision-making about the design and the operation of the organization [quote 29].

Also after the design process, methods can help consultants to rationalize and justify the design process and the created design. This function was brought up by Baker, who is a member of a disciplinary committee of a branch organization, where serious complaints of clients against consultants are handled. He told that the most common problem he encounters in this disciplinary setting, is that consultants cannot show, with generic methods, that they did their work transparently and with care. Stories without models are rarely convincing in the eyes of the committee.

Forms of methods

Methods are a part of a consultant's repertoire. To give a rough idea of the size of such a repertoire, Clark estimated that his own repertoire contained about eighty frequently used methods. In relation to the

functions of methods, two relevant distinctions were brought up by the interviewees: a distinction between simple and complex methods, and a distinction between individual methods, firm-methods, and textbook-methods.

Complex methods differ from *simple methods* in the number of activities, relations between activities, possible routes, and connections with content-related models. Complex methods, labeled by some interviewed consultants as 'scientific methods', may be more accurate in guiding design process, but they have the drawback that they are more difficult to explain to clients, and thus to support the consultant's storytelling. Therefore, complex methods are rarely used in the front-office, in the actual consultant-client interaction. According to Clark and Harper, complex methods should be kept in the back-office, for discussions among consultants, since clients do not have the time and energy to learn about a difficult method, and mostly dislike it when a consultant comes with 'scientific' methods. Quigel argues the same, and adds that he hardly uses complex back-office models, save for very complex situations. Dodge, in his turn, never uses complex methods at all. In his projects, he tries to make the design process a shared responsibility of consultant and client, and there is no place for methods that cannot be explained and used in the interaction.

The distinction between *individual methods, firm-methods, and textbook-methods* is related both to the source of the method and to the sharedness of the method. An individual method is created and used by a consultant individually, possibly in collaboration with clients, and is only part of his personal repertoire. Firm-methods are used, more or less obligatorily, by the consultants of a certain firm, and are a part of their shared repertoire. Textbook-methods are well-known methods that have been published in literature and are taught in management consulting courses, being a part of the shared repertoire of consultants. Examples of these textbook-methods, as they were mentioned in the interviews, are the balanced scorecard, SWOT analysis, Business Process Redesign, stakeholder analysis, the 4 P's, ABC analysis, and the 7S model.

Textbook-methods are part of the shared repertoire and common language of consultants, but that does not imply that all consultants appreciate these methods equally, or regard them as useful. The 7S model, published

in 1984 by McKinsey consultants Peters and Waterman, may serve as an example. Measured by the number of times it was brought up by the interviewed consultants, the 7S model has assumed an important place in the shared repertoire of management consultants. It consists of seven circles: one circle is placed in the middle, containing the words 'shared values', and six others are placed around it with the words 'structure', 'systems', 'style', 'staff', 'skills', and 'strategy'. All circles are connected with lines. Several interviewed consultants make use of this model. Parker and Baker, for instance, use the 7S model for diagnosing organizations. Parker said he uses the model because it forces him to look at all of the 7 S's, guarding him from overlooking issues, and because discussions about the relations between S's often give interesting insights in the situation. Besides, the 7S model is easy to explain and useful for telling stories to the client. The seven circles help the consultant to sell an investigation that goes into all seven aspects, and the number of connections between the S's help to tell the client that the situation is complex. The model also serves to create a common language for the design process and reduces client uncertainty by visualizing complexity. Sawyer, on the other hand, is very skeptical. He said that he never uses the 7S model, because he cannot tell a convincing story with the model. And he added that he never encountered someone who could. Dodge even declared the model to be sheer nonsense. He said:

> [Those methods and models] look very impressive, and they don't lack boxes, arrows, and variables, which all suggest certain relations. But what do these relations mean? Take the 7S model, it's nonsense. Any idiot can make a model with 40 boxes, draw some lines and arrows around it, and put some arrows more in the center than others. It looks impressive, but you can't do anything with it [quote 30].

The differences in appreciation of the 7S model and other models, may be explained by the differences in what consultants do, and by the differences in the content and structure of their repertoire. The first explanation is rather obvious. A method should be relevant for the things a consultant does, so when consultants do different things, or do things differently, this may lead to differences in appreciation. The first question consultants ask themselves when reading about a new method is, as Ingle phrased it, "could I have a question to which this method gives an answer," and if this is not the case, consultants will not put the method in

their personal repertoire. For the differences in appreciation of the 7S model, this explanation is not very illuminating though, since the 7S model is so general that any management consultant will have questions that it is supposed to answer. But the differences in content and structure of the consultants' personal repertoires do point to an explanation. The consultants who disliked the model, in particular Sawyer and Dodge, have repertoires that are centered around a few main methods, and they only incorporate other methods and models insofar as these fit in. The 7S model did not. Other consultants, with repertoires in which the model does fit, or with heterogeneous repertoires in which the model does not have to fit exactly, as in case of Parker and Baker, judged the 7S model more positively.

Although there are differences of opinion about the value of specific methods, there is considerable consensus about some of the requirements for a good method. Methods should be clear and should have been shown to be useful in practice. It should also be clear when a method will not work. The interviewed consultants did not believe in panaceas, and the existence of counter-indications for a method shows that the makers have taken contextual variations into account. Interestingly, the validation of methods was barely mentioned by the interviewed consultants. According to Dodge, consultants do not care about validation, or about the 'truth' of their methods. They use them as long as they prove to be helpful to tell their stories, to create a common language, or to perform another function they want in the design process. Thompson phrased his disinterest in validation in the following way:

> The point is not whether things are true, but whether they are valuable. Or whether people think they are valuable and whether they will actually do something with them. The essence of knowledge is not in the knowing, but in the using [quote 31].

Some consulting firms have *firm-methods*, methods that have been developed internally and have received an official stamp, saying 'this is the method we use over here'. These firm methods are used for communication and coordination among consultants, for training juniors, for collective knowledge building, for acquiring projects, and possibly for prescribing what consultants should do. Particularly the interviewed consultants who worked for big firms had firm-methods on the shelf. But

interestingly, they all felt free not to use them, probably because they thought they could do without them, or because they were too senior and experienced to be forced to use such methods. Lewis' remark is illustrative:

> There is, for example, a [firm X] method for project management. I don't know whether it differs much from the one of [firm Y], but anyway, the method is well-documented, and we also teach it to each consultant who comes to work with [firm X]. Then we say 'this is the [firm X] method for project management'. Well, I did not use it in this case [quote 32].

A characteristic of a firm-method is not only that it is used by consultants of a certain firm, but also that it is not used by consultants outside that firm. Therefore, firm-methods might give a firm a competitive advantage over its competitors. And according to leaflets about firm-methods, such as the one made by Valentine, with the method presented as unique, successful and validated, this appears to be the case indeed. Remarkable in this light is then the comment by Lewis, who said that the methods of his own firm are not much different from methods of other firms. He argued that other firms are confronted with the same kind of questions and employ (almost) equally smart consultants, who read the same literature and follow the same courses, so how could methods be very different. In his opinion, methods only give a firm a competitive advantage when they are elaborated to such detail that juniors can use them for jobs that otherwise would require seniors, which lowers the costs, or when these methods are connected to databases with unique and confidential benchmarks. In other cases, the claims related to firm-methods are probably mostly commercial rhetoric.

Individual methods are made and used only by individual consultants. They may be seen as methods that have not made it (yet) to the level of textbook-method or firm-method, but this is not necessarily a consultant's ambition. Methods may be created on-the-spot, improvising on methods that were created before, and only meant for use in the situation at hand. These methods may form a basis for improvisation in other projects and by other consultants, but they are not primarily meant to evolve into firm-methods. Ingle even said that individual methods should be preferred over firm-methods, since the latter may work as blinders for the peculiarities of the situation. He said about his own firm:

> We don't have shared models on a firm-level. That would not be good. Why not? Well, because they would work as blinders. Each model is a simplification of reality. You never should consider a model too important. You should rather put them away a little when possible, and check in each concrete situation whether or not they are applicable. And if they are not in a particular situation, then you just invent a new model [quote 33].

Constructing methods

"Really good inventions are always done in practice," Urwick said. He expressed the common opinion among the interviewed consultants that actual designing, in interaction with clients and design situations, is the prime source of methodical innovations. Literature may give inspiration, but for the most part, new methods are created by reflection in and on concrete design experiences. Especially new, complex, and challenging design projects, with interesting clients, in which consultants have to use their resourcefulness to bring the project to an end, are thought to be good sources of innovation.

Reflection on experiences seems a natural process for many consultants. Parker mentioned that when consultants start reflecting on real-life cases, they always come up with an new idea or a learning experience. But transforming a new idea into a method requires considerable effort and an appropriate setting. Writing books and articles is considered a good setting, and at least nine of the interviewed consultants work or worked on a dissertation to articulate their way of working and their ideas in a method. Other good settings are meetings with colleagues, for intervision and for the discussion of each other's experiences. Urwick told the following story about the setting in which a method was created in the team he was working with:

> If I remember well, we discovered it just by accident. We may have been doing it already in that particular way, but we had not written it down yet. […] At a certain moment, someone in our group, [Ms.Y], made a presentation about it, because we had an internal administrative-organization day. We still had a gap in the day's schedule, and she offered to fill it with this story. And so it suddenly became an official method [quote 34].

Urwick's story is also typical in that it shows that the method, at least its initial version, was created on the spur of the moment, by writing down

what they already did. Wright, for instance, also started the construction of his method by articulating the core activities he always carried out in his projects. After this quick first step, methods may be elaborated and made more rational and beautiful by cutting away superfluous elements, filling gaps and solving puzzles, searching for indications and counter-indications for its use, and elaborating the details in dos and don'ts or concrete instruments. Concerning these activities, the interviewed consultants differed considerably. Some consultants, such as Ingle, Thompson, Quigel, and Evans, put relatively little effort in the elaboration. They wanted to keep their methods open for improvisation and adaptation to specific contexts. Other consultants, such as Sawyer and Dodge, spent years on perfecting their methods. According to Dodge, it is particularly time-consuming to make a model as simple as possible by removing all the elements and relations that are not really necessary. He said:

> Making a model simple takes three times as long as naming everything in an impressive model, and most people do not get around to it, since then you'll have to continue three times as long [quote 35].

The elaboration of methods is also related to the functions they are supposed to fulfill. Methods that are meant to steer junior consultants need dos, don'ts, and details, while methods that are primarily meant to assist experienced consultants in their storytelling to clients can do without them. And methods that are meant to earn a Ph.D. require more argumentation and elaboration than methods that are created as a common language in a particular project.

5.4 Conclusions

The purpose of this chapter has been to explore design practices in management consulting and to construct a basis for practice-based design methodology. The focus in this exploration was on the design process, in particular on the identification of inconsistencies in function and form, and the construction of a new consistency, and on the methodological resources concerning the design process, in particular plans of approach and methods. The exploration revealed much variety in the ways in which consultants design organizations. This variety was expected, as the survey had shown already that variety exists in the ways of working among

different consultants, and also within the ways of working of individual consultants. In fact, the coverage of diversity in the field played a role in the selection of interviewees.

A consequence of the diversity in approaches is that the central question of this study cannot be answered by formulating one overall design strategy that is arguably productive in every situation. However, it is possible to go beyond mere description of idiosyncrasies and the observation that every consultant just does things differently. Patterns can be discerned in the variety of ways of designing. Patterns can be identified in the kind of questions and dilemmas consultants face in the design process, in the way they classify and act on variety in situations, in the arguments they give for their ways of designing in specific projects, in the content and structure of their repertoires, and in the rules they refer to to motivate, explain, or justify their actions. In the next chapter, these patterns in actions and arguments will be used to construct typologies of arguably productive strategies for organizational designing.

6

Strategies for organizational design

The purpose of this chapter is to construct practice-based design methodology in the form of arguably productive strategies for organizational designing, in order to answer the central research question of this study. These strategies should reflect the actual design practices described in chapter 5, and should be embedded in the background theory developed in chapter 2. Two sets of typical strategies, or typologies, will be formulated that meet these requirements. One typology, presented in section 6.1, contains strategies for creating organizational designs. The other typology, presented in section 6.2, contains strategies for building a repertoire with methodological resources for the design process.

6.1 A typology of design strategies

This section focuses on organizational design strategies. In 6.1.1, four idealtypical design strategies will be constructed, and the conditions will be discussed under which these strategies are productive. The result is a contingency-methodology, stating which strategy is productive in which situation. In 6.1.2, this contingency-methodology will first be nuanced, and then elaborated by revisiting practice and reconstructing the design strategies employed by the interviewed consultants.

6.1.1 Constructing a typology of design strategies

As argued in the Borodino theory in chapter 2, order is created from chaos and under the conditions of chaos. For designing, creating 'order from chaos' means that a design process starts, in principle, with an

infinite number of possibilities to restructure an organization, and ends up with only one: the resulting design. And 'order under the conditions of chaos' means that every closure is fragile, contingent, and temporary, and that, in principle, chaos may undermine a design at any moment. In organizational design practices, as described in the previous chapter, the creation of order from and under the conditions of chaos is an essential element. It concretizes around the issues of the disciplining of a design situation, the writing of a plan of approach, and generally, the construction of design nodes. The construction of design nodes is the fixing of aspects of a design, narrowing down the range of possibilities. In the empirical data, three typical ways of constructing design nodes have been identified. Design nodes can be created through rational analysis and decision-making, through a dialogue between key figures, or through experimentation and action-based learning. A node becomes fixed when rational analysis has shown it to be true or the best, when the most important people reach consensus about it, or when it has proved to work in practice. These three options emphasize the creation of order from chaos. A fourth option encountered in practice stresses the condition of chaos under which ordering takes place. This strategy introduces chaos in order to resist undue fixation of design nodes[45].

The four options regarding the creation of design nodes are taken as a basis for the construction of four idealtypical design strategies: a rational, a dialogical, a pragmatic, and a reflexive strategy. A *rational strategy* ignores or brackets chaos in a design situation and creates order through rational processes. The *dialogical strategy* acknowledges chaos, regards it primarily as a result of the different interests, opinions, and perspectives of the key figures in the organization, and tries to construct order through dialogues, aiming at consensus or compromise. The *pragmatic strategy* also

[45] There is a strong parallel between the four ways of constructing (or deconstructing) design nodes and the ways of constructing (or deconstructing) truth in philosophy of science. In the logical-positivistic tradition, truth is established objectively through logical reasoning and empirical verification, or non-falsification. In the tradition of the critical theory, truth is primarily a socio-political construct, the compromise or consensus established in a dialogue within a certain (dominant) group of people. In the pragmatist tradition, truth is established in its workings in practice. What proves useful is true. In the postmodern tradition, anything goes. Truths are considered contingent and temporary constructs, whose frailty can be shown through deconstruction (see, for instance, Chalmers, 1976, or De Vries, 1995, for an overview of these currents in the philosophy of science, and Visscher-Voerman, 1999, for the parallels between these currents and different types of educational design strategies).

acknowledges chaos, but sees it primarily as a result of the capriciousness of the design process and the occurrence of unexpected events, and tries to create order by letting it emerge in a process of learning and experimentation. The *reflexive strategy* cherishes chaos and refrains from attempts to bring about order. Order is created by the self-organization of other people involved, and by introducing chaos into the situation whenever a fixation is unduly created or taken for granted; this strategy enhances people's reflexiveness about their ways of thinking and acting.

In the following, the four idealtypical strategies will be characterized on the subjects that have been elaborated in chapter 5, in particular the nature of the design process, the way of framing the design situation, the creation and reduction of alternatives, the role of the designer(s), the primary focus of the designer(s), the implementation, and the evaluation of the design. In addition, conditions are elaborated under which consultants can follow these strategies in their idealtypical forms. These conditions have to do with the nature of the design situation, the wishes and expectations of the client, the character of the setting in which the design process takes place, and the resources of the consultant.

Rational design strategy

In a rational strategy, chaos is ignored or bracketed. This means that the design process and its outcomes are considered controllable. Designing is essentially rational problem-solving. It involves following a plan of approach, consisting of a sequence of stages, through which a specified end result is achieved. Ideally, these plans of approach are instances of generic, verified methods. The designers are individual management consultants or managers, who are in control of the design process and the design. The focus in the design process is on the content of the design. Designs should be made as good as possible in the light of the functions that are articulated during the framing process. Outside-in reasoning, from functions to forms, is the prime heuristic for constructing alternative forms. Alternatives are reduced through multi-criteria analyses or other rational-choice techniques, as all design nodes are fixed rationally. Changes in the organization are realized by implementing the design with as few alterations to it as possible. Design and design process are evaluated by comparing them to previously formulated functional requirements and the plan of approach respectively.

To follow a rational strategy, the following four conditions must be met. First, consultants must really be able to bracket chaos. If political conflicts or unexpected events occur that they cannot repair and that disrupt the planned design process severely, the rational strategy collapses. Consultants must assess as part of their framing whether the situation is susceptible to unexpected disruptions. If a situation is regarded as cognitively fairly simple, given the consultant's expertise, and socio-politically uncomplicated because of the absence of conflicting interests or because of a strong and unanimous dominant coalition to silence dissenters, a rational strategy is possible. But even then, work must be done during the design process to keep the chaos bracketed, staying on the safe and trodden paths of elaborated methods and circumventing or suppressing politically sensitive questions. Second, a rational strategy requires clients who want consultants to tell them what is good for them. They must look for certainty, because otherwise, consultants with a rationalist strategy are likely to be regarded as arrogant. Third, consultants need a well-protected design space, in which only very few people are included, and which is the place where the design is being made. If too many people are included in the design space, or if this space is too often attacked or invaded, it becomes difficult to keep the focus on the content of the design and to keep socio-political processes marginalized. Besides, it then becomes harder for consultants to claim a pivotal role in the design process. And fourth, consultants must have the right resources for a rational strategy, in particular the required expertise, and elaborate methods to guide the design process. These methods must be so convincing for the people involved that they are not questioned, since they form a major basis under the rationality-claim on the design and the design process.

Dialogical design strategy

In a dialogical strategy, chaos cannot be bracketed because of the socio-political complexity of the situation. In such a situation, a rational design strategy is not possible. Order is created by achieving consensus or compromise in a process of discussion and negotiation. Designing is a socio-political process, in which people with different interests and preferences discuss and negotiate to achieve a design to which all involved parties can commit themselves. The design is not attributed to a single designer, as in the rational strategy, but to a group of key figures, who are important in the organization or represent important groups.

Management consultants contribute to the design process by exploring and assessing the socio-political situation, identifying key figures and exploring and assessing the functional requirements and proto-designs these figures envision and prefer. They frame the design situation in such a way that a productive discussion among key figures becomes possible, and they facilitate, coach, and manage this discussion to make it converge to a design. The focus in this strategy is on the commitment of the key figures to the design process and to the resulting design. A good design is a design people are committed to. The function of methods, models, and plans of approach is to structure and improve the discussions among the key figures and to enhance their trust in the design process. Organizational change is realized by implementing the design, which can be done without much resistance, since all key figures are already committed to the design. The design, design process, and the contribution of the consultant are evaluated on the satisfaction of the key figures, during and after the design process.

To follow a dialogical strategy, the following four conditions must be met. First, the differences in interests and opinions of different people and parties must be the prime source of complexity. If the social complexity can be reduced and bracketed, a dialogical strategy is not appropriate, since it takes the differences in interests and opinions as a starting-point. If the complexity is predominantly cognitive in its origin, a dialogical strategy is not appropriate either, because then the key figures cannot state their requirements and ideas about forms yet during the framing process. And if they try to state them anyway, solely based on their own interests, the quality of the design is likely to be harmed. Second, consultants need clients who want to engage in a dialogical design process. If clients just want a consultant to make them a good design, because they look for certainty, underestimate the social complexity of the situation, overestimate their own power to push a design through, or have a rationalist pattern of expectancy regarding organizational designing, they will not allow a consultant to follow a dialogical strategy in their organization. Third, a fairly stable and limited group of key figures must be identifiable, who must all be included in the design space directly or indirectly. If important people, i.e. those who can challenge or oppose the outcome of the design process, are excluded at crucial moments or during the whole process, the resulting design has little chance of success in the implementation. If too many people are

included in the design space, the dialogical process becomes too complicated, which may result in failure to reach consensus or compromise. A design process in which a dialogical strategy has been followed allows for a limited number of key characters to whom agency is attributed. And fourth, consultants must have the right resources for a dialogical strategy, in particular methods that are adequate for communicative use. If they are too complicated, too 'scientific', or too alien from the language of the people involved, they cannot facilitate a dialogical strategy.

Pragmatic design strategy

In a pragmatic strategy, chaos cannot be bracketed because of the cognitive complexity of the situation. In such a situation, a rational or dialogical design strategy is not possible. Order is 'created' by letting it emerge in a process of action-learning and experimentation. Designing is an open-ended process, in which functions and forms co-evolve. The design is not created by a single designer or a small group of key figures, but by many people, potentially all people in the organization, in a collaborative design process. Management consultants contribute to the design processes by exploring and assessing the actual and potential momentum and competencies for learning and experimenting in the design situation, and by exploring and assessing general proto-requirements and proto-designs. They initiate the collaborative design processes, keep them going, and facilitate their clients with time and knowledge. The focus in this strategy is on the creation of momentum. The process of collaborative learning and experimentation should be spurred on to let new order emerge. Methods are used as a common language for the involved co-designers, to coordinate the designing, and to trigger further actions. Making methods on-the-spot, as part of the design process, is a way to stabilize the order that emerges. Plans of approach are used as process coordination tools. They are kept open and flexible, since they should not limit the open-endedness of the process. Implementation is interwoven with the design process, so the closure of a design process coincides with the closure of an implementation process. Design, design process, and the contribution of the consultant are evaluated as an integral part of the evaluation of the accomplished change. Has the organization actually changed and does it work better, judged from *a posteriori* functional requirements?

To follow a pragmatic strategy, the following four conditions must be met. First, indeterminacy and opacity of the cognitive side of the design situation must be the prime source of complexity. If the cognitive complexity can be reduced and bracketed, rational strategy can create a design much more efficiently and effectively. If the complexity is predominantly social in its origin, a pragmatic strategy is not adequate either, because the processes of learning and experimentation then become influenced severely by political processes. The processes then loose their open-endedness, since the emerging designs will reflect the existing socio-political structures in the organization. Second, consultants need clients who want to go down the pragmatic path, with many people involved and with an uncertain destination. Clients must have confidence in their employees, trusting that some satisfactory order will emerge in the course of the process, and that they will be able to tackle obstacles whenever they occur. If clients lack this confidence, or when they underestimate the cognitive complexity of the situation or overestimate the social complexity, other strategies will have their preference. Third, the design space must be wide, open, and dispersed, allowing for a large group of people to participate in the processes of action-learning and experimentation. In pragmatic strategies, order only becomes visible in the course of the process, and it is not given who will make a difference at which moment. Agency is not distributed *a priori* among a group of key figures, or a pivotal manager and consultant. And fourth, consultants must have the right resources for a pragmatic strategy, in particular a set of methods that is shared among the group of designers as a common language. If this set of methods is not generally embraced and internalized, it will not work as a common ground for the design activities. In addition, a toolbox of other methods should be available for local use, to help people shape their experiments and make sense of their learning experiences.

Reflexive design strategy

In a reflexive strategy, chaos is not bracketed, as the omnipresence of chaos is the basis of this strategy. The creation of order, through rational, dialogical, or pragmatic strategies, may suspend or suppress chaos for a while, but a reflexive strategy brings it back in, to challenge and destabilize unduly fixated order. Designing is seen as imprisoned in local design practices, in which certain orderings and ways of ordering are visible and possible, and others are ignored, suppressed, or invisible. A

reflexive strategy aims to free the design process from the imprisonment of local practices by reintroducing chaos, challenging designers' presumptions, showing them what they did not see before, and enhancing their reflexiveness. In a way, a reflexive strategy is a meta-strategy, constructing design practices rather than specific designs. But it can also be seen as a design strategy like the three others, since it shapes designs through shaping the practices in which they are constructed. In principle, a design process can be left entirely to the self-organization or preferred strategies of the people involved once the design practices have been reshaped. Management consultants contribute to the design process by exploring and assessing local design practices, and, as meta-designers, by opening up practices their clients have not seen, experienced, or wanted before, thus enlarging their repertoires. The focus of this strategy is on local practices. Methods are used to visualize different ways of ordering designs and design processes. The articulation of functions, the creation of forms, and the implementation and evaluation of the design as such are not a part of a reflexive strategy, but the ways in which these things are done in an organization are clues for understanding practices and potential starting points for redesigning them.

To follow a reflexive strategy, the following four conditions must be met. First, consultants must, paradoxically, bracket chaos in their own meta-practices, because otherwise they will get stuck in a reflexive *regressus ad infinitum*. Their practices of deconstructing, assessing, and redesigning clients' local design practices may themselves also be deconstructed, and so forth, eventually sweeping away any basis for action. Consultants must maintain the unequal situation that their clients are imprisoned in their practices, but that they themselves are not – or at least in a much larger and more diverse prison than their clients. Second, consultants need clients with openness for reflection. The clients' design strategies, their definitions of functional requirements, and, for instance, their view of who are key figures, are challenged seriously. And if clients are very satisfied with their practices, and want a consultant to reduce chaos instead of fostering it, a reflexive strategy does not have much chance. Third, a reflexive strategy needs designers, people who are engaged in design practices. Without design practices, there is nothing to deconstruct or to redesign. People deconstructing each other's deconstructions may have interesting conversations, but will not construct organizational designs. And fourth, consultants must have the right resources for a

reflexive strategy. They need a repertoire with methods, models, typologies, and techniques to deconstruct practices, and others to help people to do and see things differently. Table 6.1 summarizes the four strategies.

	Rational strategy	***Dialogical strategy***	***Pragmatic strategy***	***Reflexive strategy***
Characteristics of the design situation	Chaos bracketed, order through rational analysis	Chaos of socio-political origin, order through consensus and compromise	Chaos of cognitive origin, order emerges in the process	Chaos cherished and used to challenge order
Design process	Rational problem-solving	Discussion and negotiation	Action-learning and experimentation	Reflexive self-organization
Focal point	Content	Commitment	Momentum	Practices
Who creates the design?	Individual manager and/or consultant	Group of key figures	Potentially everyone	Potentially everyone, except the consultant
Contribution of the consultant	Framing the situation and creating the design	Framing the situation, structuring, and managing the dialogue	Framing the situation, initiating the design process, keeping it going, and stabilizing emerging order	Framing the situation, deconstructing and redesigning local design practices
Functions of methods and models	Guiding design process	Enhancing communication	Coordination and common language	Challenging practices
Implementation of the design	After designing	After designing	Parallel to designing	Situational
Evaluation of the design	*A priori* functional criteria	Key figure satisfaction	*A posteriori* functional criteria	Situational

Table 6.1: A typology of design strategies.

6.1.2 Using the typology of design strategies

In which situations are the typical design strategies arguably productive? The described conditions give an indication. If all complexity can be bracketed, the content is crucial, clients look for certainty, the design space can be protected well, and the consultant has elaborate and validated methodological resources to guide the design process, then a rational design strategy is productive. If social complexity cannot be bracketed, commitment is crucial, clients recognize the social complexity, all key figures can be included in the design space, and the consultant has the methodological resources to structure and enhance communication, then a dialogical strategy is productive. If cognitive complexity cannot be bracketed, momentum is crucial, clients have confidence in an open-ended, collaborative design process, the design space can be widened, and the consultant has the methodological resources to create a common

language for the design process, then a pragmatic strategy is productive. If local design practices are critical, clients are open to reflection and willing to act, and the consultant has the right methodological resources for deconstructing and enhancing reflexiveness, then a reflexive strategy is productive.

From these conditions a contingency-methodology can be constructed, in which the best design strategy depends on the nature of the design situation, the wishes and expectations of the client, the character of the setting in which the design process takes place, and the methodological resources of the consultant, in the way described above. Consultants can be advised to assess these factors as part of the framing process and to choose the best design strategy accordingly. However, this contingency-methodology has some complications. A first complication is that the contingency-factors are to a certain extent malleable and negotiable, as some interviewed consultants pointed out, to make them fit a certain strategy. Clients can be persuaded by a consultant to allow a certain strategy, the creation of design spaces can be influenced, and the adequacy of resources can be judged optimistically. Methods potentially have multiple purposes, and between an absolute 'can' and an absolute 'cannot' lies a grey area where the consultant's resources just might prove suitable for a certain strategy. The same grey area exists for the possibilities in a design situation to bracket chaos, since every situation is new, and consultants have room to think optimistically that, with some luck and determination, they may be able to keep the cognitive or social complexity restricted.

A second complication is that, over the years, consultants develop a professional identity, shaped by a combination of experiences, talents, affinities, successes, and repeated demands from clients, which predisposes their choice of a strategy and their assessment of the contingency-factors in a concrete design project. These professional identities become rooted in philosophical stances towards the world and the role of designers and consultants therein, which accord with the described design strategies (Visscher, 1996; Visscher & Rip, 1999a; Visscher-Voerman, 1999). When the world is seen as rationally ordered, created by clear-sighted and persevering designers who overcome chaos and resistance – a modernist stance – then a rational strategy is a probable first choice. When the world is seen as chaotic, in which other, sometimes

naïve, limited, and pitiable people, called designers, try to bring about order – a postmodernist stance – then a reflexive strategy is likely to be preferred. And when the world is seen as chaotic, but full of pockets of local and temporary order, accomplished by groups of co-designers, who are not necessarily 'clear-sighted and persevering' and keep an open eye for the perspectives of other people and unexpected events – an ironic stance (Rorty, 1989; Deuten, 1994; Visscher & Rip, 1999a) – then a dialogical or pragmatic strategy is a plausible first choice. A dialogical strategy fits with the view that other people's opinions are the main source of complexity and of challenging designers views, while a pragmatic strategy fits with the view that the capriciousness of life, full of unexpected events, is the prime source.

A third complication is that the typical strategies are rarely encountered in practice. In the design projects discussed in the interviews, consultants followed mixed strategies. So, although the interviewed consultants were highly competent and although they assessed design situations, design spaces, clients, and their resources in the way described in the above contingency-methodology, they thought it nevertheless more productive to mix strategies than to follow them in their typical form. Apparently, the contingency-methodology oversimplifies the choice of design strategies.

To improve the contingency-methodology, given these complications, design practice is revisited. As described in chapter 5, consultants normally start a design process with an exploration and assessment of the situation. They explore the functions and forms of the designs to be made, the organizational setting, and the local practices, and they assess the cognitive and socio-political complexity of the situation, the doability of the project, the strength and commitment of their clients, the momentum in the design process, and the adequacy of their methodological resources. This is an open process, in the sense that all mentioned contingencies are considered and that the focal points of all four design strategies – content, commitment, momentum, and local practices – are explored and assessed. Although consultants are more or less biased by their philosophical stance and their professional identity, in the way described above, no strategy is discarded *a priori*. Even if consultants have specialized in only one kind of strategy, they still check whether their strategy will (or might) work in the situation at hand.

Based on their exploration and assessment of the situation and the contingencies, and biased by their identity and stances, consultants construct a design strategy. This strategy may be mixed, but not arbitrarily. One of the typical strategies is taken as leading and one or more of the other strategies are used as subsidiaries. In narrative terms, one could say that one strategy provides the main storyline for the design process, while others are used for subsidiary scenes and to support or repair the main storyline. It is important to take one strategy as main strategy, and not to have more main strategies at the same time, since different strategies may disrupt each other. A pragmatic strategy, for instance, depends on momentum in the experimentation process, and will slow down when a search for consensus or rational analyses require too much time. And rational and dialogical strategies, in their turn, depend on analysis-based or consensus-based decisions, and become disrupted when these are postponed time and again to create room for further experimentation. Competent consultants mix subsidiary strategies in the course of the design process with their main strategy, to support or to repair it, but careful not to disturb it too much.

The strategies constructed by the interviewed consultants in the discussed design projects may serve as examples of productive mixes. Table 6.2 shows for each consultant which strategy was taken as primary and which as subsidiary[46].

[46] This table contains the projects of twenty-one interviewed consultants. With the other three consultants, no projects were discussed, or not extensively enough to decide on primary and subsidiary strategies. To categorize the strategies of the interviewees in terms of the typology, they were compared by the researcher with the characteristics of the constructed idealtypical strategies as summarized in table 6.1. In particular, the focal points in the design projects were identified. If the focus was on the content of the design, the strategy was considered primarily rational, if the focus was on the commitment of the key figures, it was considered primarily dialogical, if the focus was on the momentum in the design process, it was considered primarily pragmatic, and if the focus was on the local design practices, it was considered primarily reflexive. To grant this categorization of design projects some intersubjectivity, it was checked by the supervisors of this research project, who were familiar with both the typology and the interview reports; they agreed with the above categorization. The subsidiary strategies were identified in a similar way, with the difference that their focal points stood central in only a part or aspect of the design process. It must be noted that, since not all design projects were reconstructed entirely, the list of subsidiary strategies may be incomplete.

	B	C	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W	Y
Rational strategy	S	S	S	S	S		S	S	S	S	P	S	P	S	S	P	S	P	P	S	S
Dialogical strategy	P	P	S	S	S		P	S	P	S	S	S	S	S	S	S	P	S	S	S	S
Pragmatic strategy			P	P	P			P		P				P	P		S		S	S	
Reflexive strategy						P		S				P		S			S			P	P

Table 6.2: Primary [P] and subsidiary [S] strategies in the projects discussed in the interviews. The letters in the top-row are the initials of the consultants.

Five consultants – Nevins, Parker, Sawyer, Urwick, and Valentine – took a rational strategy as leading. In case of Nevins, Urwick, and Valentine, the design situations were fairly clear-cut – the design of a partnersystem, an administrative organization, and the redesign of a management team respectively – the clients' wishes could be articulated well, and they possessed an elaborate, standardized method for the situation at hand, which are ideal conditions for a rational strategy. In Nevins' case, though, the situation proved more complex than expected, both cognitively and socio-politically, and the project was aborted prematurely. In case of Parker and Sawyer, the situation was cognitively more complex and they lacked a standardized method to tackle it, but nevertheless, their methodological resources were regarded as being strong enough to be able to bracket complexity. Besides, Sawyer had managerial power in this project and the organization under design was relatively small, which enabled him to reduce and bracket socio-political complexity and to follow a rational strategy. Parker had more difficulty with socio-political complexity, but he reasoned that the contingencies could be molded, and that by putting a rational strategy on the foreground, socio-political complexity would be reduced.

All five consultants employed a subsidiary dialogical strategy. This strategy was used at the beginning of the design process to gain commitment of the key figures in the organization, which is a prerequisite for bracketing socio-political complexity, and for establishing a secure design space. Valentine also used a dialogical strategy, as an addition to a rational strategy, to fix important nodes in his designs of developmental trajectories for individual managers. The implementation of these designs depends so heavily upon the commitment of the designee, that the design nodes require an extra, dialogical fixation. Furthermore, Valentine used a

pragmatic strategy in the 'epilogue' of his design project. A result of his work was that people in the organization were encouraged to start all kinds of learning and experimentation processes to improve their organization.

Five consultants – Baker, Clark, Ingle, Lewis, and Thompson – took a dialogical strategy as leading. In all five cases, the projects took place in socio-politically complex situations. These client organizations had recently merged, were merging, or had plans to merge, which resulted in different parties or 'blood groups'. Besides, all organizations employed a large number of professionals and lacked a central, dominant power basis – three were educational institutions, one was a labor union, and one a publisher – which curtailed the opportunities to reduce the socio-political complexity. All consultants complemented their strategy at certain moments in the design process with a rational strategy, to break a deadlock or to prevent the consideration or creation of really poor forms. Thompson also used pragmatic and reflexive sub-strategies a few times, to open up entrenched positions in the socio-political game. A pragmatic strategy can bring relief because it shoves the creation of nodes into the future, a reflexive strategy can help because it makes visible to the key figures how they keep their dialogue entrenched and suggests how to get out of it. Lewis, in his situation, explicitly blocked a pragmatic strategy, which some key figures wanted to employ, and pressed them to commit themselves to a design 'now', because with the delay brought on by further experimentation, the window of opportunity for general commitment would pass.

Seven consultants – Evans, Fannon, Grant, Kelly, Mitchell, Quigel, and Redfield – took a pragmatic strategy as leading. In all these cases, the design projects entailed a complex integral organizational redesign. In Quigel's project, the consultant's role was limited in time and scope, centered around one working conference, but in the other projects, the consultants were engaged lengthily in the design and implementation process. All consultants used rational sub-strategies to evaluate emerging designs and to give input to the experiments and learning in the several designing subgroups. Fannon and Grant had a rational strategy in the 'prologue' of their design process, as they worked within a higher-level design that had been created through a rational strategy. Kelly also encountered the results of a rational strategy at the beginning of his

project, which the client wanted him to help in implementing. But he refused and persuaded his client to switch from a rational to a pragmatic strategy. It is notable that the consultants with a pragmatic strategy are relatively more often confronted with clients with different expectations. Kelly's client wanted a rational strategy at the beginning, Quigel's client said afterwards he had expected a more rational strategy and took another consultant for the rest of the process, and some of the key figures in Fannon's case became nervous that the process took so long. A pragmatic strategy asks much confidence from clients. Dialogical sub-strategies were used to establish and safeguard a wide and open design space, and in some cases to create wider commitment for the emerging designs. Quigel and Kelly also used reflexive sub-strategies to stimulate novel ways of thinking in the learning process when they were blocked by local practices.

Four consultants – Harper, Osborn, Wright, and Yates – took a reflexive strategy as leading. The design situations in these cases varied in subject and complexity. Osborn's case had to do with strategy design, Wright's case with redesigning strategy and structure, Yates' case with an entrenched conflict concerning the design and staffing of a managerial structure, while the interviewer's research project served as Harper's case. These cases had in common that the clients were stuck (or considered stuck) in their local practices, and needed a redesign of practice to be able to advance with their designs. Harper's strategy corresponded with the typical reflexive strategy rather well (although fitting into a typological box runs contrary to the beliefs of a reflexive strategy). The other consultants used rational and dialogical sub-strategies to create nodes, which consolidated the transformed practices and the resulting designs. In principle, any strategy may be used in a reflexive strategy to establish a change of local practice. Wright employed a dialogical strategy to design a corporate strategy, as the client was used to a rational design strategy, and he included key figures who had not been considered key figures before, thus using the dialogical strategy as a means to redesign local practices.

6.2 A typology of method-making strategies

Consultants have varying ways of making methods for use in their design practices. These ways are related to, but not dependent on their ways of designing, so the making of methods cannot be integrated into the

typology of design strategies. A separate typology of method-making strategies will be constructed in section 6.2.1, and the productivity of each typical strategy will be argued in section 6.2.2.

6.2.1 Constructing a typology of method-making strategies

In terms of the theoretical framework constructed in chapter 2, developing methods entails creating a set of rule-formulations for use in design practice. Schematized, one could say that consultants' method-making is the creation of knowledge from action, for action. Therefore, the relation between knowledge and action is taken as a starting-point for constructing a typology. The typology will be based upon two dichotomies that usefully thematize the relation between knowledge and action. One dichotomy defines two kinds of people, so-called 'foxes' and 'hedgehogs', distinguished on their different ways of building a knowledge base for their activities. The other dichotomy defines two ways of doing things, 'technique' and 'prudence', distinguished by the different kinds of knowledge they require.

"The fox knows many things, but the hedgehog knows one big thing." [47] Isaiah Berlin takes this dark line of the classical Greek poet Archilochus as a basis to create a typology of thinkers, and, as he adds cautiously, of human beings in general (Berlin, 1953). Hedgehogs relate every experience to one central vision or system, and only related to this central system do experiences have significance to them. Foxes collect a variety of experiences, in different areas, on different levels, with different purposes, and without incorporating them in a single, consistent system. A hedgehog has a 'centripetal' way of collecting knowledge. Its strategy is to build a design repertoire around a central method or model. Reflections on experiences are articulated in terms of the model or method, and methods and models from literature or colleagues are absorbed in so far as they can be integrated. A fox has a 'centrifugal' way of collecting knowledge. Its strategy is to build a heterogeneous repertoire, containing all kinds of loosely related models, methods, concepts, stories, and ideas. Any idea from any source that seems potentially useful is put in the repertoire.

[47] It remains unclear what Archilochus meant with this line. According to Berlin (1953), he might have meant that the fox, for all his cunning, cannot defeat the hedgehog's one defense.

Aristotle makes in his *Nicomachean Ethics* a distinction between 'technè' and 'phronèsis' to denote two kinds of doing things in practice (Aristotle, 1953). 'Technè' means techniqe or craft, and is regarded the central faculty of 'production'. 'Phronèsis' means prudence or practical wisdom, and is considered the central faculty of 'action' (cf. Arendt, 1958). Viewed from this distinction, two ways of designing can be distinguished. Designing can be seen as the production of forms by deploying methods and implementing models. Or designing can be seen as action, in which designers deliberate, weigh pros and cons, mold forms and functions, and form judgments about them, not primarily guided by techniques but by the well-being of the organization in general. Technique-centered designing requires a different kind of method than prudence-centered designing. The first kind needs decontextualized, elaborated, validated methods, which can guide designers precisely in their production of designs. The second kind might do without methods, but when they are used, the context in which they were created should be known, and they should leave room for adaptation and interpretative flexibility. A method should not try to guide designers precisely, but should be moldable in such a way that they can assist designers specifically in their projects at hand.

When combining these two dichotomies, a typology arises with four method-making strategies: the strategy of the hedgehog who constructs methods for technique-centered designing, the strategy of the hedgehog who constructs methods for prudence-centered designing, the strategy of the fox who constructs methods for technique-centered designing, and the strategy of the fox who constructs methods for prudence-centered designing.

A technique-centered hedgehog strategy develops a well-elaborated design repertoire around a central method. The purpose is to create a coherent hierarchy of procedures and instruments to be able to tackle a well-defined category of design situations. Once a central method has been established, methodological effort is put into instrumentation, puzzle-solving, validation, and the pursuit of closure. Instrumentation means that the model or method is made concrete and ready-for-use in a set of instruments such as questionnaires, software-tools, and databases. Puzzle-solving means that within the structure of the general method,

problems that arise in practice are tackled (cf. Kuhn, 1962). Typical examples of puzzle-solving questions are ‘how should we adapt our questionnaire to fit this specific branch of industry?’, or ‘under which conditions can we skip phase 4b?’. Validation means that the central method and its instrumentation are being tested on their effectiveness, efficiency, and other relevant criteria. The purpose is to define, as clearly as possible, in which situation they have proved to be successful and in which situations they have not. Closure means that the methods, models, and instruments are freed from their genealogical context and that their interpretative flexibility is reduced (cf. Collins, 1981). They should be uncoupled from the consultant who developed them and the context in which they were developed. They should be usable as they are, without the need to consult their maker on the premises, the history, the tricks and treats, and the correct interpretation. The design method that is constructed in this strategy is a specialized, sophisticated tool, made for a well-specified kind of job, and equipped with clear instructions for use.

A technique-centered fox strategy also develops a well-elaborated design repertoire, but not with a central method. The purpose is to create a heterogeneous toolbox with specialized instruments to tackle a wide variety of design situations. This strategy also works at instrumentation, validation, and closure, but entails much less puzzle-solving, since there is no central system to elaborate and to refine. Collecting tools is an important element of this strategy. These tools are ‘sharpened’ to fit a specific purpose, and stored in a database or on a bookshelf, from which they are fetched when they are needed in a concrete situation.

The prudence-centered hedgehog strategy develops design methodology around a central method, but without the thorough and refined instrumentation, validation, and closure. The purpose is to develop a coherent set of methods that can be used in a wide variety of contexts with a variety of functions. Methods keep their interpretive flexibility, which makes them broadly applicable, and keep their genealogical context, which makes them particularly useful in the hands of their creator. Once a central method has been established, methodological effort is put into its expansion and into widening its application. Expansion means that other models, methods, concepts, and ideas are molded in such a way that they can be linked to or integrated with the central method. Widening its application means that, with the method,

new stories are told, new kinds of designs are made in new kinds of contexts, or new aspects of designs are analyzed, made, or evaluated. The design method that is constructed in this strategy is a multi-purpose tool, made for all kinds of jobs, and especially productive in the hands of competent users.

A prudence-centered fox strategy develops a heterogeneous design repertoire. The purpose is to collect and develop models, methods, stories, and ideas that might come in handy to assist the designer in a wide variety of situations – ideally in any situation. In function and form they should be open to molding for specific contexts. Thorough instrumentation, validation, and closure is not pursued, since that would limit their adaptability and applicability. A design repertoire is like the shed of the bricoleur, described in chapter 2, filled with unrelated, but potentially useful parts and multi-purpose tools, collected from all kinds of sources. In this strategy, design repertoires are built by going through a variety of experiences, working with different people in different situations, and reading diverse literature in various disciplines. Table 6.3 summarizes the four methodological strategies.

	Technique-centered hedgehog strategy	***Technique-centered fox strategy***	***Prudence-centered hedgehog strategy***	***Prudence-centered fox strategy***
Methodology	Single-purpose tool	Toolbox with single-purpose tools	Multi-purpose tool	Toolbox with multi-purpose tools
Method-making	Integration, decontextualization, instrumentation, puzzle-solving, validation, and closure	Collection, decontex-tualization, instrumentation, validation, and closure	Integration, contex-tualization, and widening application	Heterogeneous collection, contextualization, and widening application

Table 6.3: A typology of method-making strategies.

6.2.2 Using the typology of method-making strategies

Just as with the four typical design strategies, these method-making strategies should be considered idealtypes. Consultants may make productive mixes, and primary and subsidiary strategies can be distinguished. Table 6.4 shows for the interviewed consultants which primary and subsidiary strategies they used[48].

[48] This table contains the method-making strategies of nineteen interviewed consultants. With the other five consultants, method-making was not discussed, or not extensively enough to

	C	D	E	F	G	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Technique-centered hedgehog strategy				P							P							P	P
Technique-centered fox strategy				S	S		S		S			S	S						
Prudence-centered hedgehog strategy		P		S						P	S					P			S
Prudence-centered fox strategy	P		P		P	P	P	P	P			P	P	P	P		P		

Table 6.4: Primary [P] and subsidiary [S] method-making strategies. The letters in the top-row are the intials of the consultants.

Four consultants – Fannon, Nevins, Urwick, and Valentine – employed primarily a technique-centered hedgehog strategy. Urwick followed this strategy quite purely. Fannon, Nevins, and Valentine combined it with a prudence-centered strategy, since prudence played an important part in their way of designing. In case of Valentine and Nevins, technique and prudence are kept in balance, but as the method they developed mainly concerns the technical part, the technique-centered hedgehog strategy can be regarded primary for them.

There are no consultants among the interviewees who took a technique-centered fox strategy as leading, but six consultants employed it as a subsidiary strategy. These consultants have toolboxes with elaborated tools at their disposal, but only use them in specific situations, for instance when they are working with juniors who need some methodological guidance, or when they encounter simple and standardized problems in their design process. Three consultants – Dodge, Mitchell, and Sawyer – followed a prudence-centered hedgehog strategy, apparently rather strictly, while twelve consultants, by far the majority, followed primarily a prudence-centered fox strategy.

In which situations are the typical method-making strategies, or their mixes, arguably productive? Based on the interview data, some suggestions can be made. The technique-centered hedgehog strategy

decide on primary and subsidiary strategies. The strategies of the interviewed consultants were categorized in the same way as with the design strategies, comparing the consultants' method-making activities with the characteristics of the idealtypical strategies, and checking the resulting categorization with the supervisors. It must be noted that, since the consultants' method-making activities were not in all cases reconstructed entirely, the list of subsidiary strategies may be incomplete.

works well in areas where chaos can be bracketed, and where a Schönian high ground can be created where standardizable design situations are tackled with standardized techniques. A single-purpose tool requires that the situation fits with the application-area of the tool, and in complex cases, this is difficult to say in advance. The technique-centered hedgehog strategy matches the rational design strategy, since a rational design strategy requires a bracketing of chaos and works best when a well-elaborated method is available to guarantee the desired outcomes. Three of the consultants with a technique-centered hedgehog strategy indeed followed a rational strategy in their design projects. The other, Fannon, followed a pragmatic strategy, but he accounted for complexity in his method, as it is a method for creating an architecture for learning and experimentation.

The nature of the market is also a relevant contingency factor. A technique-centered hedgehog strategy allows for cost reductions, since fairly inexperienced consultants can be employed to carry out the projects under guidance of the decontextualized techniques. Especially in Urwick's case, this was a relevant issue. Furthermore, it allows for doing big projects, since, when trained in the same methodology, different consultants talk about and do a project in the same way, which enhances their coordination. Big consulting firms use this argument to establish methods company-wide, even internationally, to enable big international projects. A technique-centered hedgehog strategy is especially suited for bigger consulting firms, because when a decontextualized method is developed, it is profitable to make as many consultants as possible use it as often as possible, since that lowers the relative costs of its development. And besides, frequent use of the methodology is necessary for further elaboration and puzzle-solving. These considerations imply that a technique-centered hedgehog strategy is principally a company strategy, of which the consultant's method-making strategy is a part. Consultants with a technique-centered hedgehog strategy make firm-methods, not primarily meant for themselves, but for their juniors and colleagues.

Since none of the interviewed consultants took a technique-centered fox strategy as leading, it is tricky to give suggestions about situations in which this strategy is productive. In principle, this strategy should work in situations where the design situation is complex, but can nevertheless be

broken down into parts for which complexity can be bracketed. These cases are probably rare, at least for the interviewed consultants. They do employ this strategy as subsidiary strategy for parts of the design process where chaos can be bracketed, and where well-elaborated methods enhance efficiency and grant the process rationality. In metaphorical terms, they do have a toolbox with single-purpose tools, which they use for clear-cut jobs, but these tools together are normally not enough to tackle the whole design. Just as the technique-centered hedgehog strategy, this strategy seems to thrive best in bigger consulting firms and to be a company strategy rather than a individual consultant's strategy. It is probably no coincidence that all six consultants with a subsidiary technique-centered fox strategy work for big management consulting firms.

Prudence-centered strategies, for hedgehogs as well as foxes, work well in contexts where chaos cannot be bracketed, where standardized methods fail, where practical wisdom is more appreciated than technical know-how, and where clients are willing to pay extra for tailor-made designs. All interviewed consultants with prudence-centered strategies worked under these conditions. Because of the interpretative flexibility of the resulting methods, this strategy is not suitable to support a rational design strategy. But it fits the other design strategies quite well, since the interpretative flexibility and contextuality make the methods adequate to enhance communication or reflexivity in very different situations, or to serve as a common language for the people in an organization. Not surprisingly, all consultants with a prudence-centered strategy, except Parker and Sawyer, employed a non-rational design strategy. And Parker's and Sawyer's design strategies were exceptional, since they followed a rational strategy (for reasons discussed in the former section) despite the complexity of the situation.

In which situations is a prudence-centered hedgehog strategy better than a prudence-centered fox strategy, and in which situations is it the other way around? The interview data do not give suggestions to answer this question. It appears that the choice of strategy depends on the character and the history of the individual consultant. Noticeable is that all three consultants with a prudence-centered hedgehog strategy have earned a Ph.D., while all seven consultants with only a prudence-centered fox strategy have not, at least not at the moment of the interview. The

hedgehogs have used their Ph.D. research to develop a consistent, mature, levelheaded method, which has become a central point of their consulting work. Especially Sawyer and Dodge have become known in the market and among colleagues for their thought-through models, developed in their dissertation and other books. Whether the apparent success of their models led to their hedgehog strategy, or the other way around, is difficult to say from the interview data, but these factors seem to reinforce each other. The same can be applied to foxes. They have become known for their wide experience and their heterogeneous repertoires. Foxes may write booklets and articles, but they generally do not write dissertations, at least not about their methods, because it would cost them too much effort to elaborate and defend something that is not pivotal in their design practice.

7.

Conclusions and discussion

Which arguably productive strategies do competent management consultants use to construct organizational designs? This was the central research question of this study. The question was posed from a diagnosis of a gap between traditional design methodology in the form of phase-models and actual design practice. Phase-models were positioned as rational reconstructions, too distant from actual design practices to be relevant for designers. The purpose of this study was to construct a practice-based organizational design methodology, in particular for the domain of management consulting, reflecting the strategies that competent consultants actually follow and that are arguably productive. To answer the central research question, a background theory and a vocabulary for describing organizational design practices and constructing practice-based design methodology were developed in chapter 2. In chapter 4, the domain of management consulting was characterized and management consulting practices were explored, based on a survey among senior management consultants. The organizational design practices of management consultants were explored in chapter 5, based on in-depth interviews with highly competent consultants. In chapter 6, arguably productive design strategies were formulated that reflect actual design practices, as an answer to the central research question.

This study was positioned within two developments in the literature, viz. the emergence of a new generation of design approaches, succeeding the classic design approach, and the increasing criticism of phase-model methodologies. The construction of a practice-based design methodology, the purpose of this study, was located as a further development of

new generation designing and as an alternative for phase-models methodologies. In this concluding chapter, the results of the study will be related to these developments in the literature again. In section 7.1, an outline will be given for a practice-based design methodology for the new generation of design approaches. This design methodology contains normative statements on how to design, the productivity of which has been argued in the preceding chapter. In section 7.2, the value and future of classic design and phase-model methodologies will be discussed. And finally, in section 7.3, suggestions will be elaborated for organizational design practice, design research, and the development of an overall design methodology for the social sciences.

7.1 Methodology for the new generation of design approaches

In organizational design literature, a new generation of design approaches is emerging. This new generation combines elements of both the classic design approach and developmental approaches. It synthesizes, mixes, or searches for middle roads between individual and collective designing, between passive and active roles for the designees, between rational problem-solving and collective learning, between separation and integration of design and implementation, between designing formal structures and developing informal structures, and between the use of generic and local knowledge. This new generation design differs from classic design on three respects. Firstly, the meaning of designing shifts away from the emphasis on making blueprints to the more integral process of bringing into being a new organization. Secondly, designing becomes more distanced from its classic preoccupation with control. And thirdly, the new generation adds considerable variety, situatedness, and complexity to organizational design, thus bringing it closer to practice. The middle roads of new generation designing should be laid out with bricks from practice. In this study, several bricks have been collected and chiseled, and in this section, they will be used to address the issues highlighted in the new generation of design approaches. The use of design knowledge will be dealt with in section 7.2.2 on the value and future of phase-model methodology.

7.1.1 A meta-strategy for organizational design

A methodology for new generation designing should involve a meta-strategy, in which situation-specific mixes of rational, dialogical, pragmatic, and reflexive strategies are created. In these mixes, one of the four typical strategies should be taken as leading and other strategies should be used as subsidiaries to support, repair, or complement the main strategy. The mixes should be created on the basis of an exploration of the inconsistencies of functions and forms of the designs to be made, the organizational setting, and the local practices, and on the basis of an assessment of the cognitive and socio-political complexity of the situation, the doability of the project, the strength and commitment of the clients, the momentum in the design process, and the adequacy of the practitioner's methodological resources. The creation of a mixed strategy should be an open process, in the sense that all contingencies are considered and that the focal points of all four design strategies – content, commitment, momentum, and local practices – are explored and assessed. While practitioners may have preferences derived from their professional history, identity, and philosophical stances, no strategy should be discarded beforehand.

7.1.2 Participation

An important issue in new generation designing, which was always a major contentious issue between classic design and developmental approaches, is the participation of employees and other stakeholders in the design process. Who should be involved in which part of the process, to do what for which aspect of the design? Or in other words, who receives the opportunity to influence the design cognitively and politically in which part of the process, and from whom is that opportunity withheld? These questions should be addressed at the beginning of the design process, with the decision of whom to include in the inventory interview round, deciding whose ideas and interests are taken seriously and whose commitment is sought, and also in the course of the design process, in particular when participants are selected for working conferences and project groups. In these decisions, cognitive as well as socio-political arguments should play a role. People should be included because of their knowledge or their power. For the inventory rounds at the beginning of the design process, and for the working conferences, socio-political arguments should be considered with extra care: it is

particularly important to include anyone who has the power to block the design or the design process. For the rest of the design process, the answers to the questions of whom to include or exclude as participants should depend on the primary and subsidiary strategies that are chosen. In a rational strategy, only a few people should be included, selected on the basis of their knowledge or expertise. In a dialogical strategy, a group of key figures should be included as co-designer, selected on the basis of socio-political reasons. In a pragmatic strategy, as many people as possible should be included. People should only be excluded in this strategy if they are not willing or not capable to participate in the learning and experimentation processes. And in a reflexive strategy, breadth of inclusion depends on the change in local design practices that is aimed for, as the inclusion and exclusion of participants itself is a way to change practices.

7.1.3 From a sequence of activities to a sequence of nodes

In the classic design approach and in phase-model methodologies, the sequence of design activities receives much emphasis. Classic designing is considered rational problem-solving, following the subsequent steps of problem-definition, analysis, solution-design, implementation, and evaluation. Especially the steps of design and implementation are to be separated. In a methodology for the new generation of design approaches, the sequence, and separation or integration of activities are related to the primary and subsidiary strategies. In a rational strategy, the problem-solving activities are separated. In a pragmatic strategy, all activities, and in particular design and implementation, are integrated or paralleled, or follow each other in short cycles. In a dialogical strategy, the only sequence that is upheld is that design precedes implementation, although implementation is anticipated by including powerful people as co-designers. In the reflexive strategy, any sequence is possible and the separation or integration of activities depends on the way in which local practices are to be changed. Before a design strategy is chosen, designers should make an inventory of both functions and forms, evaluate them on several aspects, anticipate on the implementation by seeking the commitment of key figures, and work on a more or less open ‘problem-statement’ by disciplining the situation.

Rather than proposing sophisticated sequences of activities, a methodology for the new generation design approach shifts focus from a sequence of activities to a sequence of design nodes. Design nodes are fixed points in the design that suspend certain activities and have binding implications for the rest of the process. Designers should fix one node after another, thus creating a narrowing path that leads up to a consistent function and form. The shift in focus from activity-sequences to node-sequences leads to an inversion: designers should not ask themselves anymore 'which activity should I carry out', but instead 'which activity can I bracket'. In principle, design activities should be carried out integrally or in parallel. In terms of the problem-solving cycle, this means that designers should work on the problem-definition as well as on the analysis of the problem, the design of a solution, the implementation, and the evaluation at the same time, unless they can construct a node, for instance in an agreed-upon problem-statement or diagnosis, that suspends one or more of these activities for the time being.

7.1.4 Productive shortcuts

It cannot be stated in advance which nodes can be fixed and which sequence of nodes will be the most productive in a concrete design project. Therefore, designers should, in principle, explore the design situation broadly, making an inventory of both functions and forms, on different levels, and exploring the organizational context, both cognitively and socio-politically, on both formal aspects and informal aspects, to avoid premature fixation. On the other hand, designers should also look for opportunities to take productive shortcuts in the sequence of design nodes. As part of the framing process, they should assess whether they can make a shortcut and skip or shorten further exploration. If there is consensus about the general form to be created among the key figures, if this form is doable and good enough in the light of the functions, if the risk of overlooking much better forms is limited, and if possible shortcomings can be repaired when they occur, then designers may make a shortcut early in the process. A reason to make a shortcut is to create or maintain the momentum in the design process, to shorten the lead-time, and to reduce the costs for the client. For the same reasons and under the same conditions, consultants may make shortcuts further on in the design process, by limiting the construction of alternative designs and speeding up the creation of design nodes. On the other hand, consultants should

prevent their co-designers from making shortcuts when the necessary conditions are not met. They can even introduce a detour, doing a more thorough analysis or seeking broader consensus, when there are little opportunities to repair shortcomings in the content of or commitment to the design.

7.1.5 Integral designs

The classic design approach focused on designing formal structures of organizations, the developmental approach on informal structures. New generation designing should transcend this distinction, and approach the organizational design integrally. Since this issue is more related to the content of the design than to the process of designing, it has received little attention in this study. But it can be concluded on the basis of the interviews that consultants should never limit themselves beforehand to the formal structure of the organization, nor exclude the formal structure from their designing. The formal and informal structure should be considered two sides of the same coin. Consultants may put more or less emphasis on the one or the other in the design process, but they should always explore both formal structures and informal structures at the beginning of the process to be able to decide where to put the emphasis. Even consultants who specialize in formal structures should explore informal structures to assess whether a redesign of the formal structure will be possible and beneficial for the organization. And consultants who specialize in changing informal structures should explore formal structures as they provide clues about the underlying informal structures and may serve as expedients for redesigning them.

7.2 A farewell to classic design and phase-model methodologies?

In this study, the new generation design approach is positioned as the successor for the classic design approach, and practice-based design methodology is put forward as the successor for phase-model methodologies. Does this imply that one can say farewell to classic design and to phase-model methodologies, or do they still have a value and a future in organizational design practice?

7.2.1 Classic design approach

Before the question can be answered whether the classic design approach has a future in practice, first the question must be addressed whether it had a past. The classic design approach may have dominated organizational design literature for a long time, but that does not mean that it ever reflected competent practice. Classic design literature corresponds with the rationalist repertoire of designers and design researchers, in which complexity and contingency are marginalized, and individuals with visions and corresponding blueprints are highlighted as the perpetrators of change in organizations. Rationalist narratives about design processes are mostly created before or after the fact, to convince outsiders of the rationality of the process, to mobilize resources, to confirm the agency of the designers, or to instruct novices. But practitioners also have a contingent repertoire, in which they highlight chaos, contingency, luck, and uncertainty, and in which they attach less significance to the role of individuals with visions and blueprints. Such contingent narratives are mostly told among practitioners, in exchanging actual experiences in design processes. In this contingent repertoire, which comes closer to practice than the rational repertoire, the classic design approach has only a marginal place.

The classic design approach may have been tried by practitioners, but it probably never worked and it never reflected competent practice. Not surprisingly, none of the interviewed consultants followed a purely rational design strategy, which would have implied their adherence to the classic approach. If designers follow a primarily rational strategy, as some of them do, they always need other, supporting strategies to create a situation in which a rational strategy is possible. What may have been the case is that in past practices, the rational strategy was more often used as a primary strategy, while in the present, it is more frequently employed as a subsidiary strategy. The classic design approach never dominated past practices. But this is not a reason to exclude it from future design practices. It should live on, but then as a rational design strategy, and within the new generation design approach.

7.2.2 Phase-model methodologies

The background diagnosis of this study, based on studies by Schön (1983, 1987), Suchman (1987), Bucciarelli (1994), and others, was that phase-

models methodologies shed little light on what happens in design practices and have little relevance as methodological guidelines for designers. The survey has generally confirmed this diagnosis. It concluded that consultants do not follow phase-models. Phase-models are used rather for the external functions of communication and project-management than for the internal functions of guiding practitioners and educating novices. And as far as phase-models serve as guidelines, they are used flexibly, by skipping, switching, and combining steps. Only a small group of consultants appears to put the internal functions of phase-models first and follow them strictly.

The interviews confirm the general conclusion of the survey that external functions of phase-models, generic as well as situation-specific, are more important than the internal functions. More than for guiding consultants, phase-models are used for reducing clients' uncertainty about the process in order to enhance their trust and commitment, for telling convincing stories about what is the matter and what should be done, for acquiring projects and a position in the design process, for coordinating the project and planning the required capacity, for rationalizing and objectifying the design process, for creating a common language, and for changing local practices.

The main functions of phase-models should be related to the design strategies. In a rational strategy, phase-models should be used to guide the design process, to reduce the clients' uncertainty and acquire projects, to manage the project, and to rationalize and objectify the design process, which is necessary to marginalize socio-political processes and keep complexity bracketed. In a dialogical strategy, phase-models should be used to enhance the trust and commitment of the key figures and to structure their discussions and negotiations. In a pragmatic strategy, phase-models should be used for the overall coordination of the experimentation projects, by creating a common language and a rough time-path, and for creating and monitoring the momentum in the process. In a reflexive strategy, phase-models may or may not be used, depending on how consultants wish to change the local design practices.

The form of phase-models should also be related to the design strategies. A rational strategy requires detailed phase-models, while a dialogical and especially a pragmatic strategy need open and flexible models. A rational

strategy is best supported by generic textbook-methods or firm-methods, of which plans of approach are specific instances, while a dialogical and especially a pragmatic strategy is better supported by individual phase-models, created on-the-spot. The form should also be related to the method-making strategies. Technique-centered strategies lead to detailed, decontextualized phase-models, with effort put into instrumentation, validation, and closure. Prudence-centered strategies result in more general, contextualized phase-models that are open to improvisation. Hedgehog strategies integrate phase-model with other methods and models, while fox strategies do not attempt to achieve integration and create a heterogeneous collection of stand-alone phase-models.

Should one say farewell to phase-model methodology? The answer is still 'yes', but not as definite as suggested at the beginning of this study. In situations where complexity can be bracketed, phase-models do have a prescriptive function and are important instruments to help bracketing complexity. But the paradox of phase-model methodology is that they only have this prescriptive function in relatively simple situations, where consultants are the least in need of guidance. In situations where the brackets cannot contain complexity and the mapped route of the phase-model is to be altered or repaired, or where opportunities arise to skip, combine, or switch phases, consultants need some guidance, but there, phase-models do not provide it. And in situations where chaos could not be bracketed in the first place, the prescriptive function of phase-models is even less. There they are at best memory-aids, heuristics, or starting-points for newcomers.

7.3 Suggestions for practitioners and researchers

How can practitioners and researchers make use of the results of this study? Which suggestions can be given to them to improve their designing or to conduct further design research?

7.3.1 Suggestions for practitioners

How can practitioners make use of the results of this study, in particular of the meta-strategy and the other elements of the methodology for new generation designing? To answer this question, a distinction must be made between experienced and inexperienced designers. Experienced

designers could use the typology of design strategies to explain their own strategy to others, pointing out which mix they used or will use in a design project, and giving arguments for these mixes. They could also use it to evaluate and account for their own and other designers' strategies. The meta-strategy provides a new, empirically robust framework for motivating, explaining, justifying, and evaluating actions. The typology of design strategies can become a part of the common language of groups of management consultants, and as such enhance the exchange of experiences about design projects and improve mutual learning. In collaborative design processes, the typology could help designers to see and understand each other's favorite strategies and to identify points of mutual reinforcement or potential friction, which is important for the alignment of individual strategies in a collaborative strategy.

For inexperienced or non-yet-competent designers, the meta-strategy and the other rules about participation, design nodes, and shortcuts could help them to improve their way of working. Practitioners develop their way of working predominantly by reflection on their own designing, as the survey showed, and not by copying methodology from literature. But with the present methodology, they can now ask and answer questions like 'which mix of strategies shall I make?', 'I am stuck, which suggestions for further action can these idealtypical strategies give me?', or 'things went wrong, which rule did I violate?'. In reflections in and on their designing, consultants improve their competence (cf. Schön, 1987), and in these reflections design methodology should have its place.

In which way could the method-making strategies be used by practitioners? A distinction must be made between individual consultants, consulting firms, and the profession (or occupational group) as a whole. Individual consultants can use the typology of strategies as a mirror that makes the structure of their repertoire and their way of developing methods visible and communicable. Consulting firms can use it as a tool for their knowledge management, helping them to align the strategies of their individual consultants, to build a common repertoire, and to develop firm-methods to attain a competitive advantage. This study did not offer prescriptions for method-making, as this was not an aim of the study, but some suggestions have been given in relation to the nature of the market, the complexity of the working area, the employed design strategies, and the functions the methods are supposed to fulfill in the design process.

At the level of the profession, the typology could be used as a tool for professionalization. In terms of the method-making typology, branch organizations like the ICMCI tend to follow a technique-centered hedgehog strategy in their professionalization efforts, trying to construct a shared body of knowledge with a central decontextualized and standardized phase-model that all professional consultants should follow. Given the results of this study, it is not sensible to focus only on this strategy to professionalize management consulting, as it is not consistent with the primary method-making strategies of the individual consultants for whom such a central phase-model is intended. Consultants who have a technique-centered hedgehog strategy can do without a central phase-model at the level of the profession, since they make and use their methods within a consulting firm, and consultants who might search for methods at a professional level have different method-making strategies, in which there is no central place for a decontextualized and standardized phase-model. The function a shared body of knowledge with a central phase-model may have is to serve as a part of the common language of consultants, as a template for making their own phase-models, or as a checklist for inexperienced consultants, but not as a guideline.

This study did not set out to answer the complex questions whether further professionalization of management consulting is possible and worthwhile, and if so, what would be the best way to do it. But the overall perspective and findings suggest the importance of better aligning professionalization activities with the method-making strategies of individual consultants. This can be done by shifting focus from searching for a *shared* body of knowledge and attempting to decontextualize and standardize it, to building a *heterogeneous* body of knowledge – a bricoleur's shed – in which consultants can look around in search of new concepts, methods, and models that might come in handy in their work. This heterogeneous body should be accompanied by stories, to show how the elements of this body can be applied productively in concrete contexts.

7.3.2 Suggestions for researchers

The quantitative part of this study focused on senior consultants, and the qualitative part on seniors with an excellent reputation in the field. The latter are good entrance points to reconstruct the rules of practice. The

target group of practice-based methodology does not only consist of these competent practitioners though, but also of the inexperienced practitioners who are acquiring design competencies. These novice designers, with their struggles to acquire competencies, learn the rules of practice, develop their own methods, and use or fight the methods and models that are developed by others, have not been included in this study. A study of these struggles would be worthwhile, since it could help to make methodology more relevant for junior practitioners, and also to bring more relief in the rules of practice, as some rules may prove easy to acquire, while others require much more effort. Such a study would also make it possible to connect practice-based methodology to the body of literature on design education (e.g. Cross et al., 1994; Pieters & Bergman, 1995; Schön, 1991).

In this study, the use and making of methods have been approached from the perspective of the individual consultant. This has led to the identification of method-making strategies, but not to strong prescriptions. Only the match with design strategies could be recommended, and a relation with the nature of the market and the complexity of the working area has been hinted at. To elaborate these prescriptions, method-making strategies should be approached on a firm-level, and in relation to knowledge management strategies, new product development strategies, and corporate strategies.

This study used research methods, for the reasons given, in which consultants' perspectives on and stories about their design practices were taken as an entrance to reconstruct the rules of practice. The use of other methods, in particular longitudinal case-studies, protocol analysis, and quantitative surveys, could lead to further insights. A longitudinal case-study would be the most valuable addition. It can take a broader view, focusing on consultants, clients, as well as other participants in the design process, and shed more light on the dynamics of the design strategies in the course of the process, and on the clashes or mutual reinforcements of the design strategies of different participants. A protocol-analysis study might complement the present study by going deeper into the cognitive aspects of design practices, which would be worthwhile for the elaboration of especially the rational design strategy. A protocol-analysis study could, for instance, try to find productive ways to combine inside-out and outside-in reasoning in the construction of an organizational

structure, or investigate the productive weighing of criteria in the reduction of alternatives. A survey can give insight in the occurrence of the different design strategies in the field and attempt to explain the resulting pattern in terms of the seniority of consultants, their working area, or for instance, the size and method-making strategy of the firm they work for. This does not directly lead to an addition to design methodology, but the results of such a study could be used to identify further relevant context characteristics that influence the productivity of design strategies.

7.4 Towards a social-science design methodology

This study is part of the interdisciplinary research program 'Towards a design methodology for the social sciences'. This program comprises studies of design practices in the domains of training and education (Visscher-Voerman, 1999), public administration (Van Heffen, 1995; Timmermans, 1999; Trommel, 1999), public campaigning (Klaassen & Schellens, 1999), and management consulting (this study). As the title indicates, the aim of the program is to go beyond design methodologies for specific domains, and construct an overarching methodology for designing in the social sciences. The step towards such a generic methodology is not a part of this study, but some remarks on the peculiarities of organizational design and management consulting in relation to other areas may help to make this step.

Peculiarities of the domain of management consulting are the heterogeneity of the domain, the half-hearted efforts to professionalize, and the position of consultants as visitors in the organizations that are being redesigned. The heterogeneity and the half-hearted professionalization of the domain led to an emphasis in this study on the variety in ways of designing, and on the limitations of a methodology that does not incorporate this variety. The study did not offer one-best-way to design, but four typical design strategies and a meta-strategy to mix them productively. In more homogeneous and professionalized domains, more standardized and less varied prescriptions may be possible. But it is doubtful whether these domains can be found in the social sciences. The studies of design practice by Visscher-Voerman (1999) and Van Heffen (1995) also resulted in typologies of strategies and not in just one design strategy. Thus, a methodology for all social sciences should incorporate

heterogeneity and variety, within and among the separate domains, and stay aloof from prescribing a single best way to design.

Unlike managers, and different from most designers in the social sciences, consultants are temporary visitors in the organization where they design. They lack the formal power in the organization to make decisions, and do not have an immediate mandate to design. Therefore, they can never do a design process alone, but always require participation of at least the client, but also from other people in the organization. Without this participation, consultants would not be able to gain access to the ongoing design processes, nor would they be able to leave the organization again without stopping the design process. A visitor's position has its limitations, but also opens up possibilities to use strategies that are difficult for insiders. The distance from the organization makes it possible to make local design practices part of the redesign and to use a reflexive design strategy. For internal designers such as managers, this is much more difficult, since they are part of the organization.

Compared with other designers in the social sciences, management consultants, as visitors, may occupy a somewhat eccentric position. But this position should be regarded as advanced rather than as marginal. In other domains such as educational design and policy design, protected spaces are being broken open, mandates to design are not taken for granted anymore, stakeholder participation becomes more and more important, and familiar rational strategies become less and less adequate (e.g. Wilson, 1995; Beyer & Holtzblatt, 1998). For management consultants, this is nothing new. They have already developed strategies for situations that designers in other domains still consider novel and in need of exploration. For these designers, a study-tour through management consulting may be an instructive visit to their own future.

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Summary in Dutch

Het ontwerpen van organisaties is een centraal thema in de bedrijfskunde. In de bedrijfskundige praktijk behoort het tot de kernactiviteiten van managers en organisatie-adviseurs, en in de bedrijfskundige literatuur is het altijd een belangrijk punt van aandacht geweest. De aandacht kan gericht zijn op ontwerptheorie, dat wil zeggen de inhoud van het ontwerp, en op ontwerpmethodologie, die betrekking heeft op het ontwerpproces. In dit proefschrift staat ontwerpmethodologie centraal.

De methodologische vraag 'hoe moet ik ontwerpen?' wordt vaak beantwoord in de vorm van een stappenplan. Een stappenplan bestaat uit een generieke sequentie van activiteiten, die een ontwerper zou moeten volgen om op een goede manier tot een goed ontwerp te komen. De uitgangsdiagnose van dit onderzoek, gebaseerd op onderzoeken van feitelijke ontwerppraktijken, is dat stappenplannen in de praktijk echter niet gevolgd worden. Dit leidt tot een dilemma voor ontwerp-methodologen: moet men doorgaan met de ontwikkeling van stappenplannen en ontwerpers zodanig proberen op te voeden dat ze die stappenplannen wel gaan volgen, of moet men erin berusten dat de ontwerppraktijk chaotisch is en er voor methodologie geen wezenlijke functie is weggelegd? Geen van beide is aantrekkelijk.

Een uitweg uit dit dilemma is om ontwerpmethodologie te ontwikkelen die dichter bij de feitelijke ontwerppraktijken staat en is opgebouwd vanuit de strategieën die ontwerpers daadwerkelijk hanteren om ontwerpen te creëren. Een dergelijke praktijkgebaseerde methodologie bestaat uit ontwerpstrategieën die de praktijken van competente ontwerpers reflecteren en die beargumenteerd productief zijn. In het

interfacultaire onderzoeksprogramma “Een sociaal-wetenschappelijke ontwerpmethodologie”, waar deze studie deel van uitmaakt, wordt methodologie geconstrueerd op basis van studies van onderwijskundige, communicatiekundige, bestuurskundige en bedrijfskundige ontwerp-praktijken. In dit proefschrift staat de studie van bedrijfskundige ontwerppraktijken centraal, in het bijzonder in het domein van het organisatie-advieswerk. De probleemstelling is: *Welke beargumenteerd productieve strategieën hanteren competente organisatie-adviseurs om bedrijfskundige ontwerpen te creëren?*

Deze vraag wordt beantwoord in vier stappen. Eerst wordt een theoretisch raamwerk geconstrueerd, bestaande uit een schets van de ontwikkeling van de bedrijfskundige ontwerpliteratuur, een achtergrondperspectief over hoe de wereld in elkaar zit waarin ontwerpers leven en werken, en een vocabulaire om ontwerppraktijken en praktijkgebaseerde methodologie te kunnen beschrijven. De tweede stap is het karakteriseren van het domein waarbinnen ontwerppraktijken bestudeerd worden: het organisatie-advieswerk. De derde stap is de empirische exploratie van bedrijfskundige ontwerppraktijken, waarvoor een mix van kwantitatieve en kwalitatieve methoden gebruikt is, te weten een enquête onder Nederlandse adviseurs en een serie diepte-interviews met vierentwintig zeer goede organisatie-adviseurs, die op basis van de enquêteresultaten geselecteerd zijn. In deze empirische studie worden de praktijken van adviseurs geëxploreerd, gebaseerd op het theoretisch raamwerk dat in de eerste stap is geconstrueerd. Een belangrijk aandachtspunt in deze exploratie geldt de eventuele rol van stappenplannen, met de bedoeling om de uitgangsdiagnose van dit onderzoek te testen en verder uit te werken, en om de daadwerkelijke rol van stappenplannen in ontwerppraktijken te achterhalen. De vierde en laatste stap in het onderzoek is het formuleren van productieve ontwerp-strategieën.

Theoretisch raamwerk

In de bedrijfskundige ontwerpliteratuur is een verschuiving gaande. Er is een nieuwe generatie van ontwerpaanpakken in opkomst, waarin elementen van de klassieke ontwerpbenadering worden verenigd met elementen van de ontwikkelingsbenadering, die eerder lijnrecht tegenover elkaar werden geplaatst. De nieuwe generatie synthetiseert, mixt en zoekt middenwegen tussen individueel en collectief ontwerpen, tussen rationeel

probleemoplossen en collectief leren, tussen scheiding en integratie van ontwerpen en implementatie, tussen het ontwerpen van formele structuren en het ontwikkelen van informele structuren, en tussen het gebruik van generieke kennis en lokale kennis. De nieuwe generatie verschilt van de klassieke ontwerpbenadering op drie punten. Ten eerste verschuift de betekenis van het ontwerpbegrip van het maken van een blauwdruk naar het integrale proces van het tot stand brengen van een nieuwe organisatie. Ten tweede neemt het afstand van de preoccupatie met beheersing. En ten derde creëert het ruimte voor variëteit en complexiteit van het ontwerpen, waardoor de ontwerpliteratuur dichter bij de ontwerppraktijk wordt gebracht. De in deze studie te ontwikkelen ontwerpmethodologie is een methodologie voor deze nieuwe generatie ontwerpaanpakken.

Het achtergrondperspectief van het onderzoek, de zogenaamde Borodino-theorie, conceptualiseert de wereld als complex en ambigu. Sociale processen zijn in principe zonder eenduidige structuur en krijgen die pas in verhalen, waarin processen een beginpunt en een plot krijgen, en handelingen, mensen en omstandigheden worden uitgelicht als de teweegbrengers van veranderingen. Er kunnen twee manieren om verhalen te structureren onderscheiden worden: een rationele en een contingente manier. Rationele verhalen benadrukken de rol van individuen en hun visies, plannen en ontwerpen, en marginaliseren chaos en onzekerheid, terwijl contingente verhalen de onzekerheid, toevalligheid en complexiteit van de gebeurtenissen, en de interactie van verschillende actoren en factoren juist voorop zetten. Het eerste soort verhalen bestaat uit rationele reconstructies die vooral aan buitenstaanders verteld worden, terwijl het tweede soort verhalen wordt verteld onder binnenstaanders, om de complexiteit van de eigen ervaringen weer te geven. De klassieke ontwerpliteratuur bestaat uit rationele verhalen, terwijl de nieuwe generatie zich baseert op contingente verhalen. De verschuiving in de bedrijfskundige ontwerpliteratuur is dus in elk geval een verschuiving in de manier waarop over ontwerpprocessen verteld wordt, niet noodzakelijk een verschuiving in ontwerppraktijken.

De Borodino-theorie impliceert niet dat er geen methodologie mogelijk is omdat alles chaos en onzekerheid is. In praktijken kunnen zich regels ontwikkelen die door de leden van die praktijken gebruikt worden bij het onderwijzen, motiveren, verantwoorden, en beoordelen van competent

handelen. Deze regels zijn in principe contingent, maar kunnen een quasi-stabiliteit verwerven in geprofessionaliseerde en gestandaardiseerde praktijken. In dat geval kunnen de regels gecodificeerd worden in een methodologie, die dan weer kan worden ingezet bij het beoordelen, motiveren en onderwijzen van praktijken.

Om bedrijfskundige ontwerppraktijken en de regels daarin te beschrijven is een passend vocabulaire ontwikkeld. De centrale notie is dat het ontwerpen van organisaties wordt gezien als een proces waarin functie en vorm tegelijk en in interactie worden gerealiseerd, een co-constructie. Belangrijke processen in deze co-constructie zijn de identificatie van een inconsistentie in functie en vorm, ofwel het 'framen' van de situatie, en het construeren van een nieuwe consistentie in functie en vorm. Ontwerpers exploreren en beoordelen een ontwerpsituatie en identificeren inconsistenties. Zij construeren vervolgens nieuwe consistentie door het creëren van alternatieve mogelijkheden en het reduceren van mogelijkheden door een reeks van 'design nodes', of ontwerpverknopingen, te construeren, die dan een deel van het ontwerp fixeren en voor het vervolg van het ontwerpproces als gegeven worden beschouwd. Een verder belangrijk proces is het op één lijn brengen van cognitieve en sociale aspecten van het ontwerpen, wat met name neerkomt op het organiseren en managen van een ontwerpruimte, en het insluiten en buitensluiten van mensen als participanten in die ruimte. Tenslotte zijn de 'resources' die ontwerpers gebruiken in een ontwerpproces van belang, en dan voor dit onderzoek met name de plannen van aanpak en ontwerpmethoden.

Karakterisering van het organisatie-adviesdomein

Het organisatie-advies is een heterogeen en dynamisch domein. Het omvat een variëteit aan werkvelden, firma's en 'bodies of knowledge', en is slechts in beperkte mate gehomogeniseerd door standaardiserings- en professionaliseringsactiviteiten. Dit zou kunnen impliceren dat het domein van deze studie bestaat uit min of meer geïsoleerde praktijken, begrensd binnen werkvelden, firma's en scholen, en dat een praktijk-gebaseerde ontwerpmethodologie gefragmenteerd is en niet het hele domein zou kunnen omvatten. Om te onderzoeken in hoeverre er fragmentaties en bindende elementen bestaan, zijn de resultaten van de enquête gebruikt.

Er kan worden geconcludeerd dat er ondanks de heterogeniteit bindende en overkoepelende elementen bestaan. Tussen de werkvelden zijn geen strikte scheidslijnen. Tussen alle velden zijn er verbindingen en met name de werkvelden 'organisatieverandering' en, in mindere mate, 'strategie' vormen overkoepelende werkvelden in het domein. Er zijn wel scheidslijnen tussen adviesbureaus, in de zin dat adviseurs vooral op hun eigen firma gericht zijn en minder op het domein als geheel. Dit geldt met name voor de grote organisatie-adviesbureaus. Er zijn echter adviseurs die qua reputatie het lokale niveau zijn ontstegen en in het hele domein zichtbaar zijn en goed worden gevonden. Deze adviseurs vormen bindende elementen in het domein. Tussen hen zijn geen bijzondere scheidslijnen; er zijn geen verschillende scholen waarvan zij aan het hoofd staan. En ook in de manieren waarop de excellentie van adviseurs beoordeeld wordt zit meer overeenkomst en complementariteit dan verschil en tegengesteldheid. Een methodologie voor het hele domein is dus voorstelbaar, zij het dat er in een studie van ontwerppraktijken aandacht moet zijn voor de overkoepelende werkvelden en centrale figuren, en verschillende adviesbureaus moeten worden meegenomen.

De enquête is ook gebruikt om de uitgangsdiagnose te testen dat organisatie-adviseurs in de praktijk geen stappenplannen volgen. Deze diagnose wordt in grote lijnen bevestigd. Er is slechts een kleine groep adviseurs die wel stappenplannen volgt, terwijl de overgrote meerderheid een wisselende manier van werken zegt te hebben, onder andere aangepast aan de aard van de opdracht, de wensen van de klant en het feitelijk verloop van het proces. Een aanzienlijk aantal adviseurs heeft wel de beschikking over stappenplannen, maar gebruikt die meer voor externe doeleinden als communicatie en projectmanagement dan voor interne doeleinden als het houvast bieden voor henzelf en het opleiden van juniores. En voor zover zij in hun projecten wel een stappenplan volgen, gaan zij er flexibel mee om en passen ze het aan de situatie aan door stappen te combineren, over te slaan, of om te wisselen.

Ontwerppraktijken

Op basis van de interviews met zeer competente organisatie-adviseurs en met gebruikmaking van het vocabulaire dat is ontwikkeld als onderdeel van het theoretisch raamwerk zijn ontwerppraktijken in het organisatie-advies gereconstrueerd. Uit deze reconstructie is naar voren gekomen dat organisatie-adviseurs een ontwerpproces meestal starten vanuit een

exploratie van de vraag van hun opdrachtgever. Zij nemen die vraag nooit zomaar over, maar nemen hem als startpunt voor een verdere exploratie van de situatie. In die exploratie wordt een inventarisatie gemaakt van zowel functies als vormen. Dit wordt gedaan om een breder perspectief te verkrijgen op de te realiseren functies en vormen, om de mogelijkheden en onmogelijkheden te onderzoeken voor eventuele 'shortcuts' in het ontwerpproces, om draagvlak te creëren voor het ontwerpproces en om blinde vlekken in het voorstellingsvermogen van de mensen in de organisatie te identificeren. Daarnaast worden ook de producten, processen, praktijken, politieke constellaties en eventuele andere relevante aspecten van de organisatie en haar omgeving geëxploreerd om een beeld te vormen van de context waarin ontworpen moet worden en waarin de behoefte om te ontwerpen en om een adviseur daarbij te betrekken tot stand gekomen is. Voor deze inventarisatie en exploratie worden vooral interviews met geselecteerde sleutelfiguren gehouden, soms aangevuld met andere technieken om informatie te checken of boven tafel te krijgen.

De geëxploreerde ontwerpsituatie wordt door adviseurs op verschillende aspecten *beoordeeld*. Relevante aspecten die uit de reconstructie naar boven gekomen zijn, zijn de moeilijkheid, gewaagdheid en doenlijkheid van de voorgestelde vormen, de kracht en betrokkenheid van de opdrachtgever en de sleutelfiguren, het momentum en het tempo in het ontwerpproces, de cognitieve en sociaal-politieke complexiteit van de ontwerpsituatie en het bij elkaar passen van adviseur, klant, situatie en eventuele ontwerpmethoden.

Na of parallel aan de exploratie en de beoordeling wordt een samenhangende, productieve en doenlijke *inconsistentie* in functie en vorm geconstrueerd, die als (voorlopig) uitgangspunt dient voor het verdere ontwerpproces. Deze inconsistentie wordt in een dialoog tussen adviseur en organisatie tot stand gebracht. In de taakverdeling tussen adviseur en klant in deze dialoog is grote variatie geconstateerd, die meer met de stijl van de adviseur dan met de kenmerken van de klant of de situatie te maken lijkt te hebben.

Het creëren van een nieuwe consistentie in functie en vorm kan de constructie van *alternatieve ontwerpen* behelzen. Anders dan verwacht blijken alternatieven vaker onderdeel uit te maken van een convergerende beweging in het ontwerpproces dan van een divergerende beweging.

Alternatieven worden meestal opgesteld om structuur aan te brengen in de vormen die geïnventariseerd zijn en zodoende de cognitieve en sociaal-politieke complexiteit van de situatie te reduceren. Alternatieven worden alleen gegenereerd als onderdeel van een divergerende beweging als de mensen in de organisatie zelf niet in staat zijn om met voldoende goede vormen te komen, bijvoorbeeld omdat ze vastzitten in hun lokale praktijken en manieren van denken. In sommige gevallen genereren adviseurs geen alternatieven, maar houden het bij één ontwerp, met name wanneer er al een goed ontwerp ligt waar de opdrachtgever mee verder wil en waar voldoende draagvlak voor bestaat.

Bij de constructie van ontwerpen kunnen verschillende *redeneervormen* een rol spelen. 'Case-based' redeneren en een combinatie van 'wat-als' en 'als-dan' redeneren, beide beschreven in de ontwerpliteratuur, spelen een belangrijke rol. En ook een combinatie van 'van buiten naar binnen' en 'van binnen naar buiten' redeneren wordt veel gebruikt. Adviseurs blijken vooral van buiten – de klant of de markt – naar binnen – de organisatie – te redeneren, waarbij de begrippen klant en markt vaak ruim worden opgevat. Het van binnen naar buiten redeneren – vanuit de kracht en kenmerken van de organisatie – wordt vooral gebruikt om condities en randvoorwaarden te bepalen en om de details in te vullen. Alleen bij het ontwerpen van strategieën en topstructuren is de rol van het van binnen naar buiten redeneren soms groter, vooral als het 'binnen' betrekking heeft op de kracht en kenmerken van de opdrachtgever en de sleutelfiguren.

Om het aantal alternatieve mogelijkheden in het ontwerp en het ontwerpproces te reduceren worden elementen vastgezet in '*design nodes*'. Er kunnen drie manieren worden onderscheiden waarop adviseurs 'design nodes' construeren: door het uitvoeren van een rationele analyse waarin wordt vastgesteld dat iets het beste is, door een proces van discussie en onderhandeling in te gaan waarin consensus of een compromis wordt bereikt, of door een proces van leren en experimenteren in te gaan waarin bepaalde vormen emergeren die blijken te werken. Adviseurs gebruiken deze drie manieren in combinaties, maar doorgaans blijkt één manier in een ontwerpproject voorop te staan. Daarnaast kunnen adviseurs 'design nodes' ook juist deconstrueren, om ontijdige fixatie door de opdrachtgever te voorkomen.

Ontwerpprocessen vinden plaats in een *ontwerpruimte*. In de bestudeerde praktijken is die ontwerpruimte opgedeeld in een reeks van opvolgende ontwerpruimten, vaak met wisselende participanten. Organisatie-adviseurs openen en sluiten die ruimten, met gebruik van verschillende rituelen, en zorgen dat er daadwerkelijk een reeks ontstaat en het ontwerpproces niet stokt. Een belangrijke en vaak delicate vraag daarbij betreft de insluiting en buitensluiting van mensen als participanten in die ruimten. Een belangrijke stelregel is dat mensen die het ontwerp, het ontwerpproces, of de implementatie kunnen blokkeren worden ingesloten. Verder kan het beschikken over bepaalde expertise een reden voor insluiting zijn en de behoefte om het proces niet te complex te maken een reden zijn om mensen buiten te sluiten.

Het ontwerp en het ontwerpproces worden door adviseurs vaak tijdens het proces *geëvalueerd*, om de voortgang te bepalen en eventueel bij te sturen. Hiertoe wordt een evaluatieve infrastructuur gecreëerd, waarin de geregelde gesprekken met de opdrachtgever over de voortgang meestal de belangrijkste elementen zijn, maar waarvan ook het instellen van een stuurcommissie of het uitvoeren van een ‘pilot’ deel kunnen uitmaken. Naderhand kunnen adviseurs ook het ontwerp en het proces evalueren, om te bepalen of ze het goed hebben gedaan en om van te leren, maar dit krijgt vaak minder aandacht, onder andere vanwege de praktische moeilijkheden van deze evaluatie. De satisfactie van de opdrachtgever, het halen van vooraf gestelde doelen en het succes van de organisatie kunnen wel als indicaties dienen, maar geven meestal geen sluitend antwoord.

In het ontwerpproces kunnen *plannen van aanpak* verschillende functies hebben. Ze worden gebruikt om onzekerheid te reduceren, om de organisatie-adviseur te helpen een positie te verwerven binnen het ontwerpproces en om het ontwerpproject en de capaciteit van de ontwerpers te managen. Ze worden verder gebruikt als een medium voor het doordenken en communiceren van het proces, als aangrijpingspunt om praktijken te veranderen, en in beperkte mate als richtlijn voor de adviseur. Plannen van aanpak kunnen meer of minder uitgebreid zijn. Uitgebreide plannen worden vooral gemaakt voor sociaal-politiek complexe situaties. In cognitief complexe situaties worden eerder globale dan uitgebreide plannen gemaakt, of in ieder geval wordt ruimte en flexibiliteit ingebouwd om onverwachte omstandigheden op te kunnen vangen.

Ontwerpmethoden kunnen in het ontwerpproces ook verschillende functies hebben. Zij worden gebruikt om de verhalen van de adviseur te ondersteunen, om opdrachten binnen te halen, om een gemeenschappelijke taal te creëren voor de participanten in een ontwerpproces of voor organisatie-adviseurs onderling en om het proces te rationaliseren en objectiveren. Verder kunnen zij dienen als een geheugensteuntje voor ervaren adviseurs, of als richtlijn voor juniores, bij het uitvoeren van een ontwerpproject en het schrijven van een plan van aanpak. In de literatuur zijn methoden beschikbaar en een aantal daarvan heeft brede bekendheid onder adviseurs gekregen. Het blijkt echter dat adviseurs sterk verschillen in hun beoordeling van de bruikbaarheid van die methoden. Dit verschil lijkt vooral samen te hangen met het verschil in de aard van het werk van de adviseurs en met de heterogeniteit of homogeniteit van hun ontwerprepertoires.

Adviseurs kunnen ook zelf *methoden ontwikkelen*, in de reflectie op de praktijk door een adviseur individueel of samen met een klant, danwel gezamenlijk binnen een adviesbureau. Bureaumethoden worden vooral gebruikt voor de acquisitie, het aansturen van juniores en het creëren van een gemeenschappelijke taal binnen een bureau. Ze lijken niet zozeer te werken als algemene prescripties voor adviseurs binnen een bureau, gezien het aantal geïnterviewde adviseurs dat zich vrij voelde om ze in bepaalde situaties terzijde te schuiven.

Ontwerpstrategieën

Er zijn patronen zichtbaar in de reconstructies van ontwerppraktijken die het mogelijk maken ideaaltypische strategieën te formuleren. Een tweetal typologieën is ontwikkeld: één met ontwerpstrategieën en één met strategieën voor het maken van ontwerpmethoden. In tabel 1 staan de vier ontwerpstrategieën gekarakteriseerd op hoofdpunten.

De tabel bevat ideaaltypische strategieën, die zijn onderscheiden op basis van de verschillende manieren waarop in een ontwerpproces orde wordt gecreëerd vanuit chaos en onder de condities van chaos. In concreto gaat het om de drie manieren om ‘design nodes’ te creëren – namelijk door rationele analyse, door consensus, of door emergentie in het proces – en om de manier om gefixeerde ‘design nodes’ juist los te maken. De resulterende strategieën – een rationele, een dialogische, een pragmatische

en een reflexieve – zijn in hun pure vorm alleen productief onder bepaalde condities, die te maken hebben met de mogelijkheden tot het tussen haken zetten van chaos in de ontwerpsituatie, met de wensen en verwachtingen van de opdrachtgever, met de mogelijkheden om een ontwerpruimte te creëren en daar mensen binnen of buiten te houden, en met de geschiktheid van de 'resources' van de adviseur.

	Rationele strategie	***Dialogische strategie***	***Pragmatische strategie***	***Reflexieve strategie***
Karakteristieken van de ontwerp-situatie	Chaos tussen haken, orde door rationele analyse	Chaos van sociaal-politieke oorsprong, orde door consensus en compromis	Chaos van cognitieve oorsprong, orde emergeert in het proces	Chaos gebruikt om orde te destabiliseren
Ontwerpproces	Rationeel probleem-oplossen	Discussie en onderhandeling	Leren en experimenteren	Reflexieve zelf-organisatie
Focus	Inhoud	Draagvlak	Momentum	Praktijken
Wie creëert het ontwerp?	Individuele manager en/of adviseur	Groep sleutelfiguren	Mogelijk iedereen	Mogelijk iedereen, behalve de adviseur
Bijdrage van de adviseur	Framen van de situatie en het maken van het ontwerp	Framen van de situatie, structureren en managen van de dialoog	Framen van de situatie, initiëren en op gang houden van het proces en het stabiliseren van orde	Framen van de situatie, decon-strueren en heront-werpen van lokale ontwerppraktijken
Functies van methoden	Richtlijn voor het ontwerpproces	Verbeteren van de communicatie	Coördinatie en gezamenlijke taal	Uitdagen praktijken
Implementatie	Na het ontwerpen	Na het ontwerpen	Parallel aan het ontwerpen	Situationeel
Evaluatiecriteria	*A priori* functionele criteria	Tevredenheid sleutelfiguren	*A posteriori* functionele criteria	Situationeel

Tabel 1: Een typologie van ontwerpstrategieën.

In concrete situaties is zelden volledig aan de genoemde condities voldaan en maken adviseurs combinaties van strategieën. Zij nemen dan één strategie als leidend voor het proces en gebruiken één of meer andere strategieën om de hoofdstrategie te ondersteunen, repareren, of complementeren. De keuze voor een hoofdstrategie is gebaseerd op de exploratie en beoordeling van de situatie in het licht van de bovengenoemde condities, maar is deels ook voorgegeven door de opgebouwde professionele identiteit van de adviseur.

Tabel 2 bevat vier strategieën voor het maken van methoden. Deze zijn gebaseerd op een tweetal dichotomieën die te maken hebben met de relatie tussen kennis en handelen, te weten Isaiah Berlins (1953) tweedeling in 'egels' en 'vossen' en Aristoteles' (1953) tweedeling in 'techniek' en 'prudentie'.

	Techniek-gerichte egelstrategie	***Techniek-gerichte vossenstrategie***	***Prudentie-gerichte egelstrategie***	***Prudentie-gerichte vossenstrategie***
Methode	'Single-purpose tool'	Gereedschapskist met 'single-purpose tools'	'Multi-purpose tool'	Gereedschapskist met 'multi-purpose tools'
Maken van methoden	Integratie, decontextualisatie, instrumentatie, 'puzzle-solving' en validering	Verzameling, decontextualisatie, instrumentatie en validering	Integratie, contextualisatie en verbreding van toepassing	Verzameling, contextualisatie en verbreding van toepassing

Tabel 2: Een typologie van strategieën om methoden te maken.

Net als bij de ontwerpstrategieën zijn dit ideaaltypische strategieën die in de praktijk gecombineerd kunnen worden. De productiviteit van deze strategieën hangt samen met de karakteristieken van de markt waarin de adviseurs actief zijn en de manier waarop adviesbureaus concurrentievoordeel willen behalen. De techniek-gerichte strategieën maken kostenreductie en grootschalige projecten mogelijk, vooral de egelstrategie, terwijl de prudentie-gerichte strategieën de 'resources' creëren voor situatiespecifieke ontwerpen waar extra voor betaald wordt. Daarnaast zijn ook de complexiteit van de ontwerpsituatie waarin de methoden gebruikt moeten worden, de te ondersteunen ontwerpstrategieën en het karakter en de historie van de individuele adviseur relevant.

Schets van een ontwerpmethodologie

Twee algemene richtlijnen voor bedrijfskundige ontwerpers zijn dat een ontwerpsituatie integraal benaderd moet worden en dat een meta-strategie moet worden gevolgd. Per ontwerpproject moet een op de situatie afgestemde mix van de ideaaltypische strategieën worden gemaakt, gebaseerd op een uitvoerige exploratie van de organisationele context en de inconsistenties in functie en vorm. In principe mag geen van de ideaaltypische strategieën al van tevoren terzijde worden geschoven. Vragen met betrekking tot de participatie in het ontwerpproces van sleutelfiguren, werknemers en andere 'stakeholders', en met betrekking tot de volgorde of integratie van ontwerpactiviteiten pakken anders uit afhankelijk van de geconstrueerde mix van strategieën. Verder moeten ontwerpers zich minder richten op de volgorde van ontwerpactiviteiten en meer op de volgorde van 'design nodes' en het maken van productieve 'shortcuts' daarin.

Deze methodologie voor de nieuwe generatie ontwerpaanpakken is

gebaseerd op wat competente organisatie-adviseurs doen om bedrijfskundige ontwerpen te construeren. De richtlijnen kunnen worden ingezet bij het opleiden van organisatie-adviseurs en andere bedrijfskundige ontwerpers, en kunnen een richtsnoer voor hen vormen bij het construeren, motiveren en beoordelen van ontwerpaanpakken in concrete projecten. Daarnaast kan de methodologie worden gebruikt, ook door ervaren adviseurs, om de productiviteit te laten zien van andere strategieën dan die waarmee zij gewend zijn te werken, wat tot een verruiming van het repertoire en een beter onderling begrip van adviseurs kan leiden.

De aandacht voor stappenplan-methodologieën in de literatuur zou moeten worden beperkt. Stappenplannen hebben slechts een gidsende functie in situaties waar een rationele strategie gevolgd wordt, en worden in andere situaties eventueel gebruikt om de communicatie te verbeteren, een gezamenlijke taal te creëren, en om de verhalen van adviseurs te ondersteunen bij de acquisitie van projecten, tijdens het ontwerpproces en bij een eventuele verantwoording achteraf. Een stappenplan-methodologie zou afdoende kunnen zijn voor situaties waar enkel een rationele strategie gevolgd wordt en het ontwerpproces op de klassieke manier wordt aangepakt. Maar deze situaties zijn niet gevonden in deze studie, en op basis van de Borodino-theorie kan betwijfeld worden of ze in ontwerppraktijken meer dan een zeldzame uitzondering vormen.

De in dit onderzoek geconstrueerde methodologie vertoont overeenkomsten met de methodologieën die in andere studies binnen het onderzoeksprogramma “Een sociaal-wetenschappellijke ontwerpmethodologie” zijn ontwikkeld. Ook daar resulteerde het onderzoek niet in één ontwerpstrategie, maar in typologieën van relevante aanpakken. Overeenkomstig is ook dat in verschillende domeinen een ontwikkeling gaande is waarin de beschermde ruimte waarin ontwerpers werken wordt opengebroken, en er toenemende participatie is van ‘stakeholders’. In het organisatie-advieswerk zijn adviseurs gewend vanuit een bezoekersrol te ontwerpen, en is interactie al lange tijd gemeengoed. In die zin kan de ontwerpmethodologie voor organisatie-advies een voorbeeldfunctie vervullen voor ontwerpers in andere domeinen.

Appendix A

Original quotations in Dutch

[1] Bij vrijwel iedere consultancy-vraag heb je de situatie dat er iets wordt beschreven waarvan je uit voorgaande gevallen weet dat er een hele hoop achterliggende vragen zijn die eerst beantwoord moeten worden voordat je er echt een antwoord op zou kunnen geven. En wat je ook heel vaak merkt is dat er niet benoemde, totaal andere onderwerpen een grote rol spelen; dat men op een of andere manier met elkaar afgesproken heeft dat ze onderwerp A op de agenda van het gesprek zetten met de adviseur, terwijl het eigenlijk om C gaat, maar niemand dat durft te benoemen op dat moment.

[2] Er is dus in dat soort situaties nooit sprake van EEN probleem; er is altijd sprake van een heel complexe problematiek. En iedereen zit daar natuurlijk met zijn hele verleden en zijn eigen emoties en zijn eigen ervaringen. En iedereen die heeft daar een andere kijk op. Dus wat is nou het probleem? Dat valt gewoon zo niet te zeggen, want iedereen zal daar een ander verhaal bij hebben.

[3] Het is een van de grootste valstrikken in ons werk als organisatie-adviseur, dat een stramien ons belet om goed te luisteren, en dat de mensen waar het om gaat niet met hun probleem op tafel komen. Want als ik met een stramien werk, dan heb ik een kans dat ik een vooringenomenheid heb van 'het zal wel zo zijn'. Onbevangen luisteren is heel belangrijk. […] Een stuk van mijn methodologie is sterk gericht op 'krijg ik de juiste vragen hier aan de orde', en niet 'wat is hier het antwoord'. Want als je denkt de goede vraag te hebben gesteld, dan ga je naar een antwoord toe, maar als je nog even goed geluisterd had, je nog even verdiept had, dan was je erachter gekomen dat het eigenlijk niet de goede vraag was.

[4] Bij elk interview heb je de nodige tijd nodig om vertrouwen te wekken. Je moet met de standaarddingen binnenkomen en een beetje lullen over het schilderijtje, of over hoe je hier naartoe reed, van die smalltalk, zodat ze zien dat je ook maar gewoon een mens bent en niet dat het alleen maar een onderzoek is. Met die smalltalk investeer je een beetje in de relatie, omdat het over iets gezamenlijks gaat.

[5][…] als er duidelijke conflictstof ligt, als je problematiek voor een deel aan tafel zit, en de inhoudelijke suggesties die je doet terechtkomen in een heel krachtenveld van opvattingen en belangen en werkelijkheidsdefinities, als dat aan de orde is, dan heb ik absoluut niet de pretentie dat ik zomaar kan zeggen wat de beste aanpak is. Dat kan ik niet en dat wil ik niet. Dan moet ik eerst wat proeven van die verhoudingen.

[6] Binnen onze organisatie staat een enorme incentive op doorverwijzen. Je kunt nog beter een opdracht doorverwijzen dan bij iemand op zaterdag zijn huis gaan schilderen; dat levert meer punten op in de sociale relatie. Je krijgt er niks voor, er is geen officiële registratie van, maar er is wel een soort officieuze ranking van de collega's onder elkaar. […] Het is voor mij heel belangrijk om iets door te verwijzen waar ik niet goed in ben; en om ook niet te doen waar ik niet goed in ben, want er staat een enorme straf op ontevreden klanten in onze cultuur. Dat meten wij eens per jaar door middel van een extern onderzoek. […] Iedereen weet zijn

kwaliteitsrapportcijfer en iedereen weet dat ook van elkaar. […] En dat met elkaar maakt dat mensen niet snel een opdracht zullen gaan doen die niet klopt, dus iets voor een klant zullen gaan doen waar die klant niets aan heeft.

[7] Waarom ga je nou in godsnaam als adviseur vertellen wat er mis is. Absurd! Nee, daar heb ik geen seconde over nagedacht, dat doe ik nooit. […] Je gaat toch niet vertellen wat er fout is aan een bedrijf. Ik heb daar proberen aan te voelen hoe ik met hun aan het werk zou kunnen gaan om aan hun concrete vraag te werken. Ik schrijf het ook niet op, ik werk het niet uit, ik orden het niet, ik laat het gewoon binnenkomen.

[8] Als je de mensen niet concreet daar over laat vertellen, dan kom je er niet achter wat er aan de hand is, dan krijg je alleen maar interpretaties en verklaringen en achtergronden, en dat wil ik niet horen. […] Ze moeten dus heel exacte casuïstiek beschrijven. Dat zijn natuurlijk ook allemaal reflecties, maar die zijn wel zo dat ik daar doorheen kan luisteren en kan zien 'is dat een verhaal of is dat geen verhaal'.

[9] Je diagnose wordt, naarmate je langer blijft, genuanceerder en breder. Het is dus nooit zo dat je met een gevuld model kan beginnen. […] Het leuke van advieswerk is dat je best modellen hebt, maar dat je ze interactief ontwikkelt, samen met de klant. […] Dat is een interactief complex en vaak ook multidimensioneel. Je kunt niet zeggen 'het is een strategisch probleem', want het is ook een onderhandelings-probleem, het is ook een cultuurprobleem. Dus die complexiteit maakt het ook heel moeilijk om te zeggen 'ik heb een model'. Nee, je schakelt tussen een aantal modellen.

[10] Ik formuleer die [alternatieven; KV] zo dat die verschillende oplossingen bieden voor het model waar zij al naartoe gaan. […] Dat is een grondprincipe van veel organisatie-advieswerk, 'free choice', dat je in de lijn van handelen die ze zelf bedacht hebben een paar valide keuzes aanbiedt. En niet zomaar keuzes, maar keuzes die echt relevant zijn, die grondige doordenking vragen van waar je op uit bent, en die ook een heldere richting in zich dragen op het moment dat je dat doet. […] Dus dat is het principe: neem dingen waar zij op aankoersen en gebruik dat om het in opties op te hakken, zodanig dat die opties op keuzedilemma's neerkomen, zodat er uiteindelijk een heldere oplossing uitkomt.

[11] Als ik nadenk over strategische groeirichtingen voor bedrijven, wil ik ze iets meer meegeven dan alleen maar leuke ideeën voor producten voor volgend jaar. Ik wil ze eigenlijk een soort conceptueel kader meegeven waarmee ze een aantal jaren vooruit kunnen, en het nadenken over fundamentele klantbehoeften en het type producten dat daarbij hoort.

[12] Ik doe het alleen en hoef geen rekening te houden met de mensen waar ik mee bezig ben. […] Het is laboratoriumwerk, potje hier, potje daar, mixen, roeren, en kijken wat je dan krijgt. […] Ontwerpen, dat is gewoon professioneel heel leuk om te doen; zo van 'als ik het daar nou voor het zeggen had en geen last had van het

verleden, dan zou het zo eigenlijk moeten'.

[13] Vaak begint die klant met 'heeft u niet een voorbeeld, dan doen we dat'. En dan zeg ik 'ja, we hebben wel vijftig voorbeelden; ik zal er tien voor je meenemen'. En dan denkt hij 'geen van die tien is het'. Maar het is ook meer om inspiratie op te doen, zo van 'het is toch wel handig als je dat zo doet'. […] Zo kun je wat ideetjes opdoen, maar je kunt het haast nooit kopiëren.

[14] Het ontwerpen van profielen, dat is niet zo ingewikkeld en wel redelijk tekentafelachtig. Ik pak wat profielen bij elkaar die ik in de loop der jaren heb opgespaard, en waarvan ik bijvoorbeeld denk dat ze de doelstelling van die functie leuk hebben omschreven, of de karaktereigenschappen leuk hebben verwoord; en dan ga ik knippen en plakken. Ik heb dan als adviseur inmiddels een aardig beeld van het managementniveau dat je wilt hebben, en de opdrachtgever ook, en daar baseer je je dan op.

[15] Het is heel belangrijk dat, als je zo'n basisidee hebt, dat je dan gaat zoeken naar 'wat heb je' en 'welke processen snijd je eventueel af of maak je verschrikkelijk lastig' en 'hoe vind je vormen om dat toch tot zijn recht te laten komen'. Dat nuanceert je basisidee steeds verder, geeft het steeds meer handen en voeten, laat zien waar de mitsen en maren zitten, maar maakt het daardoor ook sterker.

[16] Het moment om er als adviseur mee op te houden is als je inhoudelijk niet verder kunt, je niet tot een consensus kunt komen, de opdrachtgever geen besluit kan nemen en alle dingen open houdt. Dan wordt de basis te wankel om een volgende stap te zetten. Je kunt het even proberen, maar na een tijdje verlies je de moed en zie je 'dit werkt gewoon niet, we zijn terug bij af'.

[17] Waar ik bij veranderingsprocessen erg in geloof is verandering van onderop. Ik geloof erg in het betrekken van professionals, werkers, bij het ontwerp van hun eigen verandering. Als je de strategie, het casco van de organisatie en de randvoorwaarden allemaal hebt staan, dan zou ik er […] voor kiezen om de mensen die het moeten doen, om die ook hun eigen werk te laten inrichten.

[18] Met de klant ben je vaak in gesprek over het project, want het is voor de klant ook spannend, en we hopen allemaal dat het goed afloopt. Dat betekent dat we het heel vaak hebben over 'gaat het goed, of gaat het niet goed'. Ook voor de opdrachtgever is het belangrijk, want als het fout gaat is hij binnen de organisatie ook beschadigd. Dat betekent dat hij er altijd bovenop zal zitten of het lukt. En als het niet loopt zal die interne opdrachtgever vrij snel gaan piepen, want dat hoort hij ook weer van zijn omgeving.

[19] Het blijft altijd lastig om de effecten te meten van wat je doet. Wat eerst niet in orde was moet je proberen weg te nemen, maar dat wil niet zeggen dat dat wat veranderd wordt precies beantwoordt aan wat er moest worden weggenomen. Vaak

wordt een veel breder vraagstuk aangepakt. Vaak is dat niet te meten in termen van dat was er, dit hebben we gedaan en dit is het rendement. En het is ook zeer de vraag of je er beter van wordt om daar naar te kijken. Evaluaties hebben zin om te kijken hoe je verder moet, minder om te kijken of het geholpen heeft.

[20] Bij tijdsdruk heb je het [plan van aanpak, KV] nodig als projectleider om zowel jezelf als je collega's onder druk te kunnen zetten, zo van 'dat moet vrijdag klaar zijn, want zaterdag moet het daar liggen'. En je hebt het ook nodig in de richting van de opdrachtgever, om de opdrachtgever vast te kunnen leggen aan toezeggingen die hij heeft gedaan, zo van 'ik kom jou vandaag dit brengen, maar dan moet dat maandag klaar zijn om het dinsdag te kunnen presenteren'. Als de tijdsdruk zo groot is, dan is het goed om dat vast te leggen, omdat je anders uit de tijd loopt als de opdrachtgever zijn afspraken niet nakomt.

[21] Als je in een organisatie zit die dat belangrijk vindt, die graag een stappenschema wil hebben, dan maak ik een stappenschema. Als ik denk dat het een groot probleem is in die firma dat ze alles met stappenschema's willen doen, dan zeg ik 'zou je het niet eens zonder stappenschema willen doen, en kijken hoe dat gaat'. Als ik denk dat die cultuurshock niet functioneel is, dan ga ik mee in hun taal, omdat ik het resultaat belangrijker vind dan iets afwijkends doen.

[22] Je moet een traject nooit gedetailleerd gaan uitwerken. Het kost energie en je gaat je energie richten op het bedenken van wat er allemaal mis kan gaan en dat is zonde. Het kost vaak heel veel moeite om mensen ervan te weerhouden om bij de start energie te gaan steken in het gedetailleerd over dingen nadenken. Dat geeft alleen maar schijnzekerheid, want vaak is tegen de tijd dat je er bent de situatie anders dan je van tevoren bedacht had. Alleen soms ontkom je er niet aan, puur als schijnbeweging, omdat iemand op een sleutelpositie de rust van het gedetailleerde plan nodig heeft.

[23]

1. Instelling van een begeleidingscommissie, bij voorkeur bestaande uit het directiebureau, het hoofd P&O en de projectleider van het adviesbureau. De commissie heeft tot taak het proces te bewaken, fungeert als informatiepunt en stimuleert en faciliteert bruikbare initiatieven van personen in de organisatie, zoals […]
2. Vaststellen van een planning. Gedacht wordt aan een compact proces, startend […]
3. Informatieverstrekking aan deelnemers over de audit. De consultant begeleidt de interne informatie o.a. op introductiebijeenkomsten en via de email.
4. Start van de audit. Deelnemers schrijven een korte notitie ter voorbereiding.
5. De audit door 2 adviseurs, in 2 interviews, het eerste van 1,5 uur, het tweede van 1 uur.
6. Gebaseerd op de in de interviews verkregen inzichten wordt een verslag opgesteld met de volgende rubrieken […]
7. Feedbackgesprek met de deelnemers over het audit rapport, ongeveer een uur

durend. Onderwerp is of zij het rapport accepteren. Als de betrokkene het rapport niet accepteert, zal het desnoods vernietigd worden.
8. De adviseur overhandigt de auditrapporten aan de leiding, eventueel met commentaar van de betrokkenen.
9. De leidinggevende voert een ontwikkelingsgesprek met de betrokkene, waarbij de adviseur aanwezig is. Doel is stappen te bespreken die van belang zijn voor de ontwikkeling van de betrokkene.
10. Het adviesbureau analyseert het totale potentieel van de staf.

N.B. Onderzoeksverslagen blijven vertrouwelijk.

[24]
1. Communicatie in de organisatie over de opzet en bedoelingen van het traject.
2. Onderzoek, ontwikkeling en besluitvorming over de uitgangspunten voor de toekomstige organisatie.
3. Onderzoek, ontwikkeling en besluitvorming over de toekomstige topstructuur van [X], over de inrichting van de stafdiensten en over de competentieprofielen voor de sleutelpersonen.
4. Personele invulling van de sleutelposities in de topstructuur.
5. Onderzoek, ontwikkeling en besluitvorming over de toekomstige structuur en managementstructuur in de instituten, over de competentieprofielen voor de sleutelpersonen, over het samenspel tussen de instituten met de instellingsorganen en tussen de instituten onderling.
6. Verdere personele en organisatorische invulling in de instituten.

[25] Uiteraard met de aantekening dat werkendeweg kan blijken dat het verstandig is om te versnellen of te temporiseren, dan wel dat bepaalde onderwerpen met voorrang behandeld moeten worden. Daarom is het wenselijk om regelmatig informeel overleg te voeren tussen de opdrachtgever en de externe adviseur over voortgang en bijzonderheden.

[26] Het is ook een proeve van bekwaamheid van een adviseur dat je niet handelt volgens een spoorwegboekje, maar dat je in de gaten houdt van, loopt het proces goed. Dat is het voordeel. Dus zelfs als je er van afwijkt op basis van goede gronden, dan vergroot dat de geloofwaardigheid in het grote proces en ook in jou als adviseur.

[27] Het is gewoon een industrieel proces, het is zo overzichtelijk. Dus het is voorspelbaar en het is beheersbaar; het is allemaal fantastisch.

[28] Toen ik bij [bureau X] terecht kwam, kwam ik er achter dat ik eigenlijk heel weinig wist van het adviesvak. Want als mensen tegen mij begonnen over het 7S model, of de BCG-matrix… Daar had ik nog nooit van gehoord. Dat heeft me een aantal jaren heel onzeker gemaakt. Ik was een heel goede adviseur, maar had totaal geen methodische bagage. Toen startte er een post-doctorale opleiding voor adviseurs en dat ben ik gaan doen. Daar werd mij in een sneltreinvaart alle methodische kennis bijgebracht die mij ontbrak, de modellen die gebruikt worden in het advieswerk. Dat

nam bij mij veel onzekerheid weg, want nou wist ik waar die mensen het over hadden, en dat was wel heel prettig. Maar ik merkte dat ik mijn werk best heel goed had gedaan toen ik nog niet over die kennis beschikte.

[29] Als je het alleen politiek laat wezen door het niet transparant te maken en niet te objectiveren, dan loop je twee grote risico's. Eén is dat je gewoon een hele stomme beslissing neemt, dat er verkeerde uitkomsten komen. En in de tweede plaats kan het leiden tot een zekere verloedering van de organisatie, in dat men zich erbij neerlegt dat het puur politieke processen zijn, en ik denk dat dat voor de kracht van de organisatie op termijn geen goede zaak is. Dus het in goede banen leiden van die processen met objectiveringinterventies is goed voor de organisatie. Het heeft er mee te maken dat ik denk dat je besluiten moet kunnen verantwoorden tegenover anderen, en zichtbaar moet maken. De meeste organisaties zijn niet gediend met vriendjespolitiek. Er moet een redelijke mate van objectieve besluitvorming over de inrichting en de werking van de organisatie zijn.

[30] [Die methoden en modellen] ogen zeer indrukwekkend, en het ontbreekt ook niet aan blokken en pijlen en variabelen, die allemaal verbanden suggereren. Maar hoe die verbanden liggen? Neem het 7S model, het is flauwekul. Iedere gek kan een model maken met 40 blokken en daar kun je lijntjes omheen trekken en pijltjes aan geven, en sommige pijltjes wat centraler maken. Het oogt indrukwekkend, maar niemand die er wat mee kan.

[31] Het gaat er bij mij nooit om of dingen waar zijn, maar of ze waardevol zijn. Of ze als waardevol worden ervaren en of men er iets mee gaat doen. De essentie van kennis is niet het weten, maar het gebruiken ervan.

[32] Er is bijvoorbeeld een [Firma X]-methode voor projectmanagement, en ik weet niet of die erg anders is dan bijvoorbeeld die van [Firma Y], maar in ieder geval is die methode netjes gedocumenteerd, en wij leren die ook aan alle adviseurs als ze bij [Firma X] komen werken. En dan zeggen we 'dat is de [Firma X]-methode voor projectmanagement'. Nou, die heb ik hier dus niet gebruikt.

[33] We hebben geen gedeelde modellen op bureauniveau. Dat zou ook niet goed zijn. Waarom niet? Nou, omdat ze veel te oogklepperig werken. Elk model is een versimpeling van de werkelijkheid. Je mag nooit een model te belangrijk gaan vinden. Je moet ze juist een beetje wegstoppen als het kan en per situatie kijken of ze toepasbaar zijn of niet. En als het in een situatie niet kan, dan bedenk je een nieuw model.

[34] Volgens mij hebben we het gewoon per ongeluk ontdekt. We deden het misschien al op die manier, maar we hebben het alleen nooit opgeschreven. […] Op een gegeven moment was er iemand in onze groep, [Mevr.Y], die er een presentatie over heeft gemaakt omdat we een AO-dag hadden. Er zat nog een gat in het programma en dat wilde zij wel opvullen met dit verhaal. Toen was het opeens een

officiële methode geworden.

[35] Het simpel maken duurt ongeveer drie keer zo lang als alles kunnen benoemen in een indrukwekkend model, en de meeste mensen komen er niet aan toe, want dan moet je nog drie maal zo lang door.

Appendix B

Survey questions

ENQUETE NAAR ADVIESMETHODEN
(september/oktober 1997)

Deel I: Adviseurs in Nederland

In deel I vragen wij u om adviseurs te noemen die volgens u tot de meest competente in Nederland behoren en om aan te geven waarom. Zodoende kunnen wij de Nederlandse adviespraktijk in kaart brengen en adviseurs identificeren die interessant zijn voor ons verdere onderzoek. U kunt als u wilt ook uw eigen naam noemen. Het is niet de bedoeling om een rangorde te creëren of om een adviseur-van-het-jaar te kiezen. Uw meldingen worden volledig anoniem verwerkt en dienen slechts binnen het geheel voor nadere analyse in de volgende fase van dit onderzoeksproject.

1. Als u bij uzelf nagaat welke drie organisatie-adviseurs *binnen uw adviesterrein* tot de besten behoren in Nederland, welke adviseurs noemt u dan? Het gaat om adviseurs die u echt kent en respecteert.

1.1 Naam: …..
Werkt bij: …..
Reden (s.v.p. aankruisen wat vooral van toepassing is):
O hanteert een goede adviesmethode
O is goed in de sociale kant van het advieswerk
O anders, nl.: …

1.2 Naam: …..
Werkt bij: …..
Reden (s.v.p. aankruisen wat vooral van toepassing is):
O hanteert een goede adviesmethode
O is goed in de sociale kant van het advieswerk
O anders, nl.: …

1.3 Naam: …..
Werkt bij: …..
Reden (s.v.p. aankruisen wat vooral van toepassing is):
O hanteert een goede adviesmethode
O is goed in de sociale kant van het advieswerk
O anders, nl.: …

2. Wanneer u evenzo drie organisatie-adviseurs moet noemen die naar uw mening *over alle adviesterreinen heen* behoren tot de besten in Nederland, welke drie zou u dan noemen?

2.1 Naam: …..
Werkt bij: …..

2.2 Naam: …..
Werkt bij: …..

2.3 Naam: …..
Werkt bij: …..

3. En welke organisatie-adviseurs *binnen uw adviesterrein* zou u specifiek willen noemen omdat hij of zij een zeer vernieuwende manier van werken heeft? (indien u geen persoon specifiek wenst te noemen, kunt u deze vraag overslaan)

Naam: …..
Werkt bij: …..
Vernieuwende manier van werken, omdat, nl.: …..

4. Welke van de hieronder vermelde adviesterreinen beschouwt u als uw eigen belangrijkste adviesterrein(en)?

O Strategie
O Organisatieverandering
O Marketing
O Administratieve organisatie
O Human Resources Management / Personeelsbeleid
O Opleiding & training
O Logistiek
O Kwaliteit
O Informatietechnologie
O Anders, nl.: …..

5. Bij welke organisatie / welk bureau bent u werkzaam?

Organisatie: …..
Onderdeel van (eventueel): …..

6. Hoeveel jaren bent u (reeds) werkzaam als organisatie-adviseur?

O Korter dan 3 jaar
O 3 – 5 jaar
O 6 – 9 jaar
O 10 – 15 jaar
O 16 – 25 jaar
O Langer dan 25 jaar

7. Wat is uw hoogst voltooide opleiding?

8. Aan welke instelling van onderwijs?

9. Wat is uw huidige functie binnen de organisatie waarin u werkzaam bent?

O Directeur/vennoot/lid directieteam
O Senior partner/adviseur
O Junior partner/adviseur
O Anders, nl.: …..

Deel II: Eigen manier van werken
In deel II vragen wij u om, afhankelijk van uw eigen situatie, in te gaan op uw eigen manier van werken binnen uw functie als organisatie-adviseur. Ook nu gelden uw antwoorden voor het verkrijgen van een algemeen beeld binnen de professie. Geef a.u.b. uw spontane antwoorden.

10. Hoe is, in algemene zin, de manier van werken die u als adviseur hanteert tot stand gekomen? (Vermeld s.v.p. per hieronder genoemde mogelijkheid de mate waarin u vindt dat deze in uw geval geldt: 1 = geldt in zeer sterke mate, 2 = geldt in behoorlijke mate, 3 = neutraal, 4 = geldt in mindere mate, 5 = geldt in het geheel niet)

Manier van werken is:	Geldt 1	2	3	4	Geldt niet 5
Zelf ontwikkeld	O	O	O	O	O
Ontwikkeld samen met collega's	O	O	O	O	O
Overgenomen van collega's/voorgangers	O	O	O	O	O
Voortontwikkeld vanuit literatuur	O	O	O	O	O
Overgenomen uit literatuur	O	O	O	O	O
Via opleiding meegekregen	O	O	O	O	O

Eventuele andere manieren waarop werkwijze tot stand is gekomen:
…..

11. Wanneer we een globale indeling maken naar drie verschillende methoden, die ook buiten het organisatie-advieswerk vaak gebruikt worden (zie hieronder), welke daarvan geeft uw eigen manier van werken vooral het beste weer? (Vermeld s.v.p. per hieronder genoemde mogelijkheid de mate waarin u vindt dat deze in uw geval geldt: 1 = geldt in zeer sterke mate, 2 = geldt in behoorlijke mate, 3 = neutraal, 4 = geldt in mindere mate, 5 = geldt in het geheel niet)

Manier van werken volgens:

	1	2	3	4	5
Vaste probleemaanpak in de vorm van een stappenplan of fasenmodel	O	O	O	O	O
Wisselende methode, afhankelijk van de specifieke situatie	O	O	O	O	O
Case-based methode, waarin bestaande oplossingen worden aangepast voor nieuwe situaties	O	O	O	O	O

12. Hieronder stellen wij enkele vragen betreffende de hierboven genoemde methoden. Voorzover van toepassing, beschikt u over een expliciet stappenplan of fasenmodel?

O Ja (door naar vraag 13)
O Nee (door naar vraag 18)
O Niet van toepassing (door naar vraag 18)

13. Zo ja (vraag 12), in welke mate gebruikt u dit fasenmodel voor de hieronder genoemde doeleinden? (1 = in zeer belangrijke mate, 2 = in belangrijke mate, 3 = neutraal, 4 = weinig, 5 = nooit)

	Zeer 1	2	3	4	Nooit 5
Communicatie naar de klant	O	O	O	O	O
Management van het adviesproject	O	O	O	O	O
Opleiding van junior adviseurs	O	O	O	O	O
Houvast voor uzelf tijdens opdrachten	O	O	O	O	O

14. Bevat uw fasenmodel één of meerdere fasen, voor welke het volgende geldt?

	Ja	Nee
Het probleem wordt helder gemaakt	O	O
Het probleem wordt gediagnosticeerd	O	O
Een oplossing wordt gegenereerd	O	O
De oplossing wordt getest	O	O
De oplossing wordt geïmplementeerd	O	O
De oplossing wordt geëvalueerd	O	O

15. (Indien stappenplan of fasenmodel:) Slaat u wel eens fasen uit het eigen model over?

O Zeer vaak
O Tamelijk vaak
O Vaker niet dan wel
O Zelden
O Nooit

Indien ja, welke dan?

16. (Indien stappenplan of fasenmodel:) Neemt u wel eens fasen samen (combinatie van stappen of fasen tegelijk)?

O Zeer vaak
O Tamelijk vaak
O Vaker niet dan wel
O Zelden
O Nooit

Indien ja, welke dan?

17. (Indien stappenplan of fasenmodel:) Wisselt u de volgorde van stappen of fasen wel eens?

O Zeer vaak
O Tamelijk vaak
O Vaker niet dan wel
O Zelden
O Nooit

Indien ja, welke dan?

18. (VOOR ALLEN) Welke concrete activiteiten voert u altijd uit tijdens een adviesopdracht? (s.v.p. betreffende activiteiten noemen)

…..
…..
…..
…..
…..
…..

19. Als u uw eigen manier van werken aanpast aan een specifieke situatie, in hoeverre laat u die dan afhangen van de volgende factoren? (1 = in zeer grote mate, 2 = tamelijk vaak, 3 = neutraal, 4 = weinig, 5 = nooit)

	Zeer 1	2	3	4	Nooit 5
De wensen van de opdrachtgever	O	O	O	O	O
De aard van de adviesopdracht	O	O	O	O	O
Het feitelijke verloop van de opdracht	O	O	O	O	O

20. Zijn er andere belangrijke factoren van invloed op uw specifieke manier van werken in adviessituaties?

Ja, nl.: …..

21. In welke mate maakt u bij uw advieswerk gebruik van de volgende hulpmiddelen? (1 = in zeer grote mate, 2 = tamelijk vaak, 3 = neutraal, 4 = weinig, 5 = nooit)

	Zeer 1	2	3	4	Nooit 5
Databank(en) met voorbeelden	O	O	O	O	O
Databank(en) met kengetallen	O	O	O	O	O
Simulaties	O	O	O	O	O
Software tools	O	O	O	O	O

22. Zijn er andere fysieke of gecomputeriseerde hulpmiddelen van welke u vaak gebruik maakt?
Ja, nl.: …..

Tenslotte willen wij u enkele algemene vragen stellen over uw werkwijze en uw taakopvatting als adviseur.

23. In welke mate probeert u tijdens een adviesopdracht het verloop van het adviesproces te plannen en te sturen?

O in zeer sterke mate
O in sterke mate
O enigszins
O nauwelijks
O geheel niet

24. In welke mate neemt u tijdens een adviesopdracht standpunten in ten aanzien van wat wenselijk is voor een organisatie?

O in zeer sterke mate
O in sterke mate
O enigszins
O nauwelijks
O geheel niet

25. In welke mate probeert u uw opdrachtgever van uw standpunten te overtuigen?

O in zeer sterke mate
O in sterke mate
O enigszins
O nauwelijks
O geheel niet

26. Wat ziet u als uw belangrijkste taak als adviseur?

O Het bereiken van resultaten met een organisatie
O Het in gang zetten van veranderingen binnen een organisatie
O Het aanzetten tot reflectie binnen een organisatie
O Anders, nl.: …..

Hartelijk dank voor uw beantwoording van deze vragenlijst.

Indien u over schriftelijk materiaal beschikt over uw manier van werken en bereid bent om die beschikbaar te stellen, dan zouden wij het zeer op prijs stellen als u dit materiaal zou meezenden in de antwoord-envelop.

Appendix C

Interview questions and introduction

C.1 Interviewprotocol

[in Dutch]

1. Regelvragen

Met 'regelvragen' probeer ik te achterhalen of dat wat de adviseur doet een regel is. Deze vragen zullen in het interview vaak gesteld worden en daarom zet ik ze hier bij elkaar.

1. Hoe kwam u er op om dat te doen?
2. Doet u dat vaker op die manier? Zo ja, doet u dat altijd zo? Zo nee, Hoe kwam u er juist in dit geval op om het te doen, en, gaat u dit vaker doen?
3. Kunt u mij uitleggen waarom? Waarom is het goed om dat zo te doen? Kunt u nog meer redenen geven?
4. Had u dat ook anders kunnen doen? Kunt u daar een voorbeeld van geven. Onder welke omstandigheden doet u het op een andere manier?
5. Doen uw collega's het ook op deze manier? Als anders: wat vindt u van die manier van doen? Zijn er ook collega's die zich niet in uw werkwijze kunnen vinden? Welke redenen hebben zij daarvoor?

2. Introductievragen

1. Welke opdracht is interessant om te bespreken in dit interview [recent (zodat u zich de voorvallen goed herinnert), interessant/goed aangepakt (hoeft geen succescase te zijn), waarin een plan van aanpak is opgesteld, methoden/modellen zijn gebruikt en ontwerpmomenten zitten
2. Waarom heeft u deze opdracht gekozen?

3. Vragen over het 'framen'

1. Waarom nam uw opdrachtgever een adviseur in de hand?
2. Waarom denkt u dat hij voor u heeft gekozen?
   - Speelde uw methode daarbij een rol?
3. Wat was er volgens u in die organisatie aan de hand? Wat heeft u gedaan om daar achter te komen?
   - Hoe heeft u dat aangepakt (doorlichting, verdere gesprekken met de opdrachtgever on-the-spot experiment, collega's, literatuur, bestanden raadplegen)? *Regelvragen* 2, (3, 4 en 5).
4. Heeft u modellen, of checklists gebruikt?
   - Welke? Wat heeft u daar precies mee gedaan? Heeft dit model nog meer functies gehad? *Regelvragen* (hoe kwam u er op om deze te gebruiken? etc.)
5. Had u ook al een idee over een mogelijke oplossing(srichting)?
   - Hoe kwam u daar op?
6. Had uw opdrachtgever zelf ook door dat dit aan de hand was?
   - Heeft u hem daarvan kunnen/moeten overtuigen? Hoe heeft u dat aangepakt?

4. Vragen over het plan van aanpak

1. Heeft u een plan van aanpak gemaakt?

- Zo ja, wat heeft u in dat plan van aanpak gezet? Hoe zag uw aanpak eruit? (welke activiteiten in welke volgorde met welke rolverdeling)?
- Zo nee, waarom niet? Heeft u voor uzelf een aanpak uitgedacht? Welke?

2. Hoe kwam u er op om deze aanpak te hanteren
   - Als een verbijzondering van een (standaard) fasenmodel: Hoe heeft u dit fasenmodel aan de situatie aangepast? Hoe kwam u er op om dit fasenmodel te gebruiken? Heeft u overwogen om een ander model te gebruiken? Had u ook een ander model kunnen gebruiken? Wat maakt dit model geschikt voor gebruik? *Regelvragen*.
   - Als een 'tailor-made' aanpak: Hoe heeft u dit plan van aanpak opgesteld? Hoe kwam u er op om dit plan aanpak zo op te stellen? Welke modellen heeft u gebuikt? Waarom deze? Had u een andere plan van aanpak kunnen opstellen? *Regelvragen*.
   - Heeft u andere aanpakken overwogen? Welke? Waarom heeft u daar niet voor gekozen?
3. Wat heeft u bewust niet in uw plan van aanpak gezet?
   - Waarom niet?
   - Welke onderdelen van uw plan van aanpak heeft u open gehouden (en welke onderdelen heeft u gespecificeerd)? Waarom is het belangrijk om deze onderdelen open te houden?
4. Had u het commitment van uw opdrachtgever bij dit plan van aanpak? Hoe heeft u dat verworven?
5. Als ik uw plan van aanpak hoor, dan klinkt dat erg logisch. Is het ook logisch?
   - Waarom is het (niet) logisch? Wat is de logica achter het plan?
   - Is het belangrijk dat een plan van aanpak logisch klinkt? Waarom?
   - Hoe zorgt u dat uw plan van aanpak logisch klinkt?
6. Aan welke eisen moet een goed plan van aanpak voldoen?

5. Vragen over het realiseren en passend maken van functie en vorm

1. Vervolgens gebeurt er natuurlijk van alles. Kunt u een moment aangeven dat u bent afgeweken van uw plan?
   - Om welke redenen bent u hier van uw plan afgeweken? Kunt u nog meer redenen geven?
   - Hoe kwam het dat u niet aan uw plan kon vasthouden? In welk geval zou u hebben vastgehouden aan uw plan?
   - Heeft u uw verdere plannen ook bijgesteld? Heeft u uw plan verder ingevuld? Wat heeft uw opdrachtgever daar aan bijgedragen?
   - Hoe heeft u er voor gezorgd dat u niet te ver van uw plan hoefde af te wijken?
2. Op welke momenten heeft u uw plan van aanpak (of uw fasenmodel) er weer bij gepakt?
   - Wat heeft u precies met dat plan gedaan? *Regelvragen*.
   - Heeft het plan nog meer functies gehad?
3. Op welk(e) moment(en) in het proces is er iets ontworpen, heeft de oplossing

vorm gekregen?
4. Hoe heeft u dat aangepakt? *Regelvragen*.
5. Heeft u modellen of checklists gebruikt?
   - Welke? Wat heeft u daar precies mee gedaan? *Regelvragen* (hoe kwam u er op om deze te gebruiken? etc.)
6. Op welk moment was de opdracht voor u afgelopen?
   - In hoeverre waren het probleem en de oplossing toen passend op elkaar? In hoeverre was de oplossing toen gerealiseerd? In hoeverre was het doel toen gerealiseerd, volgens u en volgens uw opdrachtgever?
   - Kunt u aangeven waarom dat voor u voldoende reden was om de opdracht te beëindigen (praktische en/of inhoudelijke reden)?

6. Reflectievragen

1. Als u terugkijkt naar deze adviesopdracht, vindt u dan dat u deze opdracht op een goede manier heeft aangepakt? Kunt u uitleggen waarom?
   - Had u hem ook heel anders aan kunnen pakken? Welke effecten zou dat gehad hebben? Waarom heeft u dat niet gedaan?
   - In hoeverre was de opdracht een succes? Waarom? Welke criteria?
2. Heeft u op een goede manier gebruik gemaakt van uw methoden, modellen?
   - Had u deze opdracht ook zonder methode kunnen doen? Waarom (niet)? Waarom gebruikt u dan toch zo'n model? Voor wie is dat model vooral bedoeld?
3. Worden methoden volgens u ook wel eens op een verkeerde manier gebruikt? Kunt u daar enkele voorbeelden van geven?
   - Zijn er ook opdrachten waar u geen stappenplan gebruikt? Waarom daar niet?
4. Heeft u op basis van deze opdracht uw fasenmodel, checklist, of stappenplan veranderd?
   - Hoe heeft u dat gedaan? Waarom (niet)? Wat is er nu verbeterd?
   - Op basis waarvan zou u uw model wel (of: nog meer) veranderen? Op welke onderdelen?
   - Welke onderdelen van uw model hoeft u zeker niet meer te veranderen? Waarom?
   - Is de methode nu 'af'?
   - Kunt u uitleggen waarom? Welke criteria zijn er voor een 'affe' methode?
5. Is dit een goede methode?
   - Kunt u uitleggen waarom? Welke criteria zijn er voor een goede methode (naar inhoud en vorm)?
   - Wat is een goede manier om methoden te ontwikkelen?
6. Is deze methode ook bruikbaar voor andere adviseurs?
   - Kunt u uitleggen waarom (niet)?
7. Kan de methode ook een verkeerde manier gebruikt worden? Hoe?
8. In hoeverre kunt u uw ervaring/vakmanschap vastleggen in een methode?
   - Wat kunt u niet vastleggen in een methode? Is dat relevant? Hoe legt u dat

dan vast?

- Op welke andere manieren legt u uw ervaring vast? Hoe doet u dat precies?

9. Welke ontwikkelingen ziet u dan in de ontwikkeling van methoden?
    - Welke ontwikkelingen ziet u als positief / negatief?

7. Afsluiting

1. Vragen om schriftelijk materiaal (fasenmodellen, checklists, stappenplannen, offerte, folder, artikelen)
2. Vragen of hij het relevant vindt dat er onderzoek wordt gedaan naar het gebruik van stappenplannen. Wat vindt hij (nog) relevanter.

C.2 Introductory letter to selected consultants

[in Dutch]

Geachte Heer X,

Vanuit de Universiteit Twente werk ik aan een promotie-onderzoek naar de methoden die organisatie-adviseurs hanteren in hun adviespraktijk. Centraal in dit onderzoek staat de vraag hoe adviseurs in hun opdrachten te werk gaan en op welke wijze zij daarbij gebruik maken van methoden, modellen en technieken. Het doel van het onderzoek is om op basis van de bestudering van adviespraktijken een bijdrage te leveren aan de ontwikkeling van methoden die goed aansluiten bij wat adviseurs in hun opdrachten feitelijk doen.

Een belangrijk onderdeel van dit onderzoek is een serie interviews met ervaren en competente organisatie-adviseurs. Wij richten ons vooral op deze adviseurs, omdat wij verwachten dat juist van hen veel over het onderwerp van dit onderzoek te leren valt. Om adviseurs te selecteren voor deze interviews hebben wij een survey gehouden onder senior adviseurs in Nederland. Aan deze adviseurs is onder meer gevraagd om adviseurs te nomineren die zij beschouwen als de meest gerespecteerde en gerenommeerde binnen hun adviesterrein, of binnen het Nederlandse organisatie-advieswerk in het algemeen. Uw naam is daarbij herhaaldelijk genoemd. Daarom wil ik u graag vragen of u mee wilt werken aan een interview. [Eventueel: Een extra reden om u te vragen is dat ik met plezier en interesse uw recente artikel in de tijdschrift X of uw boek Y heb gelezen, waarin u thema's aan de orde stelt die voor mijn onderzoek erg relevant zijn].

In dit interview wil ik met u spreken over uw manier van werken, de achtergronden daarvan en in het bijzonder over het gebruiken (of juist niet gebruiken) van methoden, modellen en technieken. Nadere informatie over de inhoud en de achtergronden van het onderzoek en de interviews treft u aan in de bijlage.

Binnenkort zal ik telefonisch contact met u zoeken in de hoop een afspraak met u te kunnen maken. Zonodig kan ik dan nog het één en ander toelichten. Mocht u bereid zijn tot een interview, maar telefonisch moeilijk te bereiken zijn, dan zou ik het zeer op prijs stellen indien u op het bovenstaande telefoonnummer of emailadres contact met mij wilt opnemen.

Met dank voor de genomen moeite.
Vriendelijke groet,
Ir. Klaasjan Visscher

Bijlage: Achtergronden bij het onderzoek

In mijn promotie-onderzoek ben ik op zoek naar methoden die in de praktijk van het organisatie-advieswerk gehanteerd worden om organisaties te ontwerpen. De term 'ontwerpen' wordt hierbij ruim opgevat en omvat ook de minder planmatige en beheersmatige manieren om organisaties te vormen en te veranderen. Uit een eerste studie in de literatuur is een grote hoeveelheid methoden naar voren gekomen. Meestal hebben deze methoden de vorm van een stappenplan of een fasenmodel en wordt het ontwerpproces voorgesteld als een logisch en rationeel proces. Er is echter ook kritiek op deze voorstelling van het ontwerpproces. In de praktijk verlopen ontwerpprocessen meestal niet logisch en rationeel volgens de stappen van een stappenplan. De manier van werken van adviseurs wordt gaande het proces aangepast aan het specifieke van het probleem, de sociaal-politieke processen in de organisatie van de opdrachtgever en aan het onverwachte dat hij of zij onderweg tegenkomt. Een groot aantal adviseurs hanteert wel stappenplannen en fasenmodellen, bijvoorbeeld om een plan van aanpak mee op te stellen, om eigen ervaringen mee te bundelen, of om naar klanten te communiceren, maar de kunst van het ontwerpen van organisaties is maar ten dele in die methoden te vatten, zelfs als een adviseur zijn methode zelf heeft ontwikkeld. De ontwerpvaardigheid van een adviseur lijkt mede te zitten in het op een goede manier gebruiken (en soms omzeilen) van zijn repertoire aan technieken, methoden, stappenplannen, checklists en modellen. In dit onderzoek wil ik er achter komen hoe organisatie-adviseurs in de praktijk organisaties ontwerpen en hoe zij daarbij gebruik maken van methoden en technieken.

Dit promotie-onderzoek maakt deel uit van het onderzoeksprogramma 'Een sociaal-wetenschappelijke ontwerpmethodologie'. Dit programma, dat in 1994 van start is gegaan, is een samenwerkingsverband van de vier maatschappijwetenschappelijke faculteiten van de Universiteit Twente. Binnen deze faculteiten wordt empirisch onderzoek verricht naar het ontwerpen van organisaties, beleid, lesmethoden en voorlichtingscampagnes. Het is de bedoeling om vanuit empirische studies te komen tot bouwstenen voor ontwerpmethodologie in de sociale wetenschappen.

Het empirisch deel van dit promotie-onderzoek bestaat uit een exploratieve survey onder Nederlandse senior organisatie-adviseurs en uit een twintigtal diepte-interviews met organisatie-adviseurs die binnen hun werkveld een zeer goede reputatie hebben opgebouwd. Deze interviews zijn er op gericht om iets te weten te komen over de werkwijzen van de geïnterviewde adviseurs en de achtergronden daarvan. Een aantal vragen is specifiek gericht op het gebruik van methoden, technieken, aanpakken, modellen en checklists. Die vragen gaan bijvoorbeeld over 'wat zijn goede redenen om stappenplannen te gebruiken of om ze juist niet te gebruiken?', 'hoe worden stappenplannen gebruikt bij het maken van een plan van aanpak?', 'welke functies hebben methoden en technieken, voor adviseurs zelf en voor de communicatie met hun opdrachtgevers?', en 'aan welke eisen moet een bruikbare methode voldoen?'. Afhankelijk van de tijd die de geïnterviewde heeft duren deze interviews anderhalf tot twee uur.

Van het interview wordt een verslag gemaakt, dat wordt geanalyseerd en vergeleken met de interviews met andere adviseurs. In het proefschrift zullen de analyses van de interviews (uiteraard volledig geanonimiseerd) een prominente plek krijgen.

Appendix D

List of analysis topics

This appendix contains three tables with topics, which were constructed for the analysis of the interviews. In the first column, all topics are listed that were identified in the interviews, and in the following columns, it is marked for each interview whether it contains data on that topic. The first row contains the initial letters of the interviewees' pseudonyms.

Topics concerning the identification of inconsistency in function and form (section 5.1)

	M	F	I	H	Q	N	S	G	U	L	T	P	A	D	O	C	W	K	R	Y	E	B	J	V
Exploration																								
Products & markets	O		O		O		O			O		O			O				O		O			
Macrocontext															O									
Primary processes	O				O		O		O			O						O			O			
Information processes							O		O															
Finances	O		O		O																			
Employees	O		O		O							O									O			
Key figures	O		O		O	O		O	O		O				O	O	O				O			
Stakeholders										O								O	O					O
Buildings and materials			O																					
Technology					O																			
Knowledge																O								
Organizational politics			O																					O
Strategy			O			O		O		O		O			O	O	O		O					O
Culture and identity			O			O															O			
History						O																		
Target group									O															
Problems	O			O	O	O			O		O	O	O	O	O	O	O	O		O				O
Ambitions & sorrows																	O	O						
Problem owners																		O		O				
Opportunities/threats			O		O		O				O													O
Other functionalities									O			O												
Forms and solutions			O		O	O				O		O		O	O	O	O	O		O				
Higher level designs		O			O				O															O
Practices				O	O	O					O			O	O		O	O		O	O			
Cases	O																			O				
Expectations					O																			
SWOT								O		O						O								
Interviews	O		O	O	O	O	O		O	O	O		O		O		O	O	O	O	O		O	O
Group-interviews	O																							
Documents			O			O			O		O													O
Archive consultancy							O		O						O									O
Newspapers							O																	
Observation	O																				O			
Survey			O																				O	
Benchmarking			O																					
Working conference					O	O					O				O	O			O		O			
Photo-album																	O							
Consulting colleagues						O	O																	O
Building trust					O	O	O	O			O		O										O	
Standard analysis	O		O		O	O	O		O										O				O	
Situational analysis	O		O		O	O	O				O		O				O						O	

Quick analysis	O		O				O				O											
Thorough analysis																						
Stepwise analysis					O	O	O				O					O	O	O				
Assessment																						
Severity	O													O								
Urgency					O			O			O							O				
Doability			O		O		O				O											
Match problem/method		O							O					O								
Match problem/consultant					O						O		O			O		O				
Match consultant client											O					O						
Chances for success									O													
Hardness		O	O		O																	
Ambitiousness											O											
Resistance to change		O			O	O				O	O											O
Cognitive complexity		O			O	O				O	O	O				O				O	O		O	
Social complexity					O					O	O					O				O				
Analysis depth			O																			
Quality of the management			O		O						O					O		O				O		O
Quality of employees		O			O							O										
Momentum			O																			
Possible tempo					O																O	
Commitment			O		O			O		O						O			O					O
Mobilizes energy														O				O						
Consistency o.t organization					O																	
Disturbance processes					O																	O	
Fun																								O
Assessment method											O													
Disciplining																								
Standard models	O						O		O	O		O		O		O				O	O			
Situational models	O									O						O			O					
Standard frame									O	O														
Tailored frame										O							O				O			
Case-based frame																								
Target								O																
Reframing				O	O	O			O		O	O		O			O	O	O					
Design level		O	O			O			O										O					
Consultant frames	O				O	O			O		O	O					O	O		O				
Client frames	O	O		O	O	O			O		O	O					O	O		O			O	
Third party frames		O																						
Collaborative framing					O				O						O				O					
Consensus about frame	O				O		O			O	O		O		O		O	O						
Diagnostic report	O																			O	O			
Uncertainty		O				O														O		O		
Intake		O	O				O		O		O						O				O		O	
Process management	O													O				O						
Alignment												O												
Method/approach	O	O	O		O				O		O					O		O						O

Topics concerning the construction of consistency in function and form (section 5.2)

	M	F	I	H	Q	N	S	G	U	L	T	P	A	D	O	C	W	K	R	Y	E	B	J	V
Designing a form																								
Alternatives			O			O	O			O	O	O			O	O	O	O	O	O	O	O	O	O
Micro-processes	O		O			O					O					O	O				O		O	O
Nodes	O		O		O	O	O	O	O	O	O	O				O		O		O		O		O
Outside-in(side-out)	O				O							O			O			O						
Consistency					O				O															
Sequence designs		O	O		O	O		O	O			O						O	O		O			
Multilevel									O			O						O	O					
Co-evolution function								O	O			O												O
Aligning cogn./soc-pol.																								
Experimenting /selforg.	O	O						O			O							O	O					O
Moves											O	O					O				O			
Forms	O		O			O						O			O			O			O			
Stories	O				O																			
Metaphors						O											O				O			
Practices	O			O		O					O	O			O		O	O			O			
Design competencies											O						O				O			
Serendipity/luck		O					O																	O
Commitment		O	O		O	O		O	O	O	O	O						O				O		O
Momentum		O	O					O	O	O	O					O					O			
Decomposition					O							O						O						
Case-based working									O			O							O					O
Difficulty design												O				O			O		O		O	
Techniques															O									
Reports															O	O	O			O	O	O		
Inclusion & exclusion	O	O	O		O		O		O			O							O		O		O	
Design space			O			O	O				O	O				O		O			O		O	
Stage-setting		O	O				O														O			
Virtual worlds		O				O			O												O			
Design/consulting roles	O	O	O			O	O		O	O	O	O			O	O	O		O		O		O	
THE organization																								
THE client	O					O						O	O					O						
Checks, tests, evaluation																								
Formative evaluation	O	O	O					O	O							O								O
Summative evaluation									O															O
Other checks	O				O			O																
Quality design			O													O					O	O		O
Quality process			O													O					O	O		O
Quality designer																								
Implementation																								
Implementation							O		O			O				O								
Implementable design									O			O									O			O
Alignment design/change							O	O	O		O	O			O			O	O				O	
Design/development						O																		
Redesign in implementation		O							O															O
Resistance												O												
Organizing the process																								
Structure o.t. process	O							O	O	O		O		O			O	O	O		O			
Time & money					O		O	O	O			O				O				O				

Topics concerning methods and plans of approach (section 5.3)

	M	F	I	H	Q	N	S	G	U	L	T	P	A	D	O	C	W	K	R	Y	E	B	J	V
Plans of conduct																								
Uncertainty		O	O		O			O	O	O	O					O	O	O	O					O
Content			O		O					O	O	O			O									O
Consensus			O		O																			
Function					O					O	O					O	O		O				O	O
Language					O						O													O
Criteria					O																			O
No plan/small plan					O		O			O	O						O		O					
Using methods																								
In general																		O				O	O	O
Content method	O	O	O												O		O		O					O
Content model	O										O	O	O	O	O	O				O				
Contextualizing	O	O	O		O					O	O	O			O	O							O	O
Functions method	O	O				O		O	O		O				O		O					O	O	O
Functions model		O		O			O			O	O	O	O	O	O	O			O	O		O		O
Users model		O	O		O									O		O	O		O					
Danger (no) methods			O			O	O			O	O	O	O		O	O			O					O
Attitude					O		O	O		O	O	O			O	O	O	O	O			O	O	O
Definitions				O		O				O			O	O	O	O	O	O					O	
Rationalization					O	O																		
Making methods																								
Making methods	O	O	O						O	O	O	O		O		O	O		O		O	O		O
Making models			O		O																			
Aesthetics	O						O								O					O				
Counter-indications		O								O	O	O	O	O	O			O		O				
Criteria					O	O					O			O			O		O	O		O		O
Publishing		O			O					O				O			O				O			O
Dissertation	O	O																						
Closure		O	O				O		O			O		O					O					
Use by others	O	O	O							O		O		O					O					O
Consultant & method		O					O			O		O			O	O	O	O	O	O			O	O
Juniors					O	O		O	O	O		O	O		O	O	O			O			O	
Firm-level methods										O		O		O	O				O					
Standard elements		O	O						O															
D-bases			O					O	O	O					O				O			O		
Knowledge gap client/cons.															O		O		O					
Segmentation										O	O	O	O		O	O		O	O					O
Trends										O		O									O			