

Facilitating GMA Workshops for Modelling Wicked Problems

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Abstract: As a conceptual modelling method, General Morphological Analysis (GMA) is especially interesting and useful for treating what have come to be known as “wicked problems”. This is best done in multi-stakeholder workshops facilitated by a professional morphologist. This article discusses the art and science of organising and facilitating such GMA workshops, from its planning phase and through the entire process. It is based on the experience of 100+ projects carried out over the last 25 years.

Keywords: general morphological analysis, modelling workshops, multi-stakeholder groups, facilitation.

1. Introduction

“Wicked problems” is a *term d’art* in the area of management science and social planning theory. It denotes complex, multi-stakeholder-contested policy issues which are continually developing and mutating in a dynamic social context (see Rittel & Webber, 1973; Conklin, 2001; Ritchey, 2011, 2013). Fritz Zwicky – the modern pioneer of general morphology – was clearly referring to such social problem complexes in one of his earlier descriptions of the method (in “Morphological Astronomy”):

“In physics, biology, botany, geology, and other disciplines the morphological method has played an important role. In *sociology and statecraft, where prejudices, conventions and narrow ideologies interfere*, the method is more difficult of application although it is *precisely in these fields where it could be most beneficial*.” (Zwicky, 1948, p. 121f, emphasis added)

Zwicky gave an example of this in an article concerning the “smog problem” in Los Angeles in the late 1950’s. There he states that the morphological approach is especially applicable to such complex policy driven problems that require “... an integrated view which relates [technical,] political, psychological and ethical factors ... [which] ... add up to a complex task which is beyond the power of ordinary scientific, technical and managerial experts.” (Zwicky, 1960).

A few years later, Horst Rittel, the design theorist at the University of Berkeley in California, coined the term “wicked problems” to refer to such complex policy driven issues (Churchman, 1967; Rittel, 1972). In 1973, he and his colleague Melvin Webber introduced this concept to a

broadier audience with their article for *Policy Science*, “Dilemmas in a General Theory of Planning” (Rittel & Webber, 1973). In this article, the authors observed that there is a whole realm of “wicked” social and organisational planning problems that cannot be successfully treated with traditional linear, analytical (systems-engineering-like) approaches. Dealing with such problems demands instead a collective, multi-stakeholder engagement, and a recursive process of successive “understanding” and “acting” – an interaction of theory and praxis.

Computer-aided General Morphological Analysis (GMA) was initially developed in 1995-6 for structuring and modelling such complex policy driven (“wicked”) problems in a multi-stakeholder group setting. Such a group modelling process requires a combination of professional facilitation skills and extensive knowledge and experience in morphological modelling – a combination which, at that time, was non-existent, and is still rare today. This article deals with the art and science of facilitating such modelling workshops.

This does not mean that morphological modelling cannot be practiced in other forms. It most certainly can. For instance, you can 1) do it yourself (i.e. solo); 2) do it “back-office” with a group of like-minded colleagues; 3) do it in facilitated multi-stakeholder workshops; 4) do it ditto in distributed, “online” workshops.

Certainly one can create morphological models “solo”. Fritz Zwicky worked exclusively this way in modelling natural science, engineering and social science problems. Likewise, GMA has been utilised by both individuals and small task groups as a problem structuring method (PSM) and for “attribute listing” within specific areas of study. This can be carried out either by hand or using a digital spread sheet. This is most usually done with relatively “tame problems”, where one already knows (more or less) what a problem consists of “parametrically”, and one wishes to explore or speculate on how these parameters hang together and interact.

However, attempting to carry out GMA modelling “solo” or “back-office” when one is dealing with really complex, open-ended, contested (“wicked”) problems completely misses the point. Firstly, by definition, wicked problems (WPs) are about stakeholders and stakeholder positions. Where stakeholder “buy-in” and a collective understanding of issues and positions are important, then working alone or in a single stakeholder setting is obviously not the ticket. In dealing with complex policy driven problems, more effective results will be achieved if these problems are framed and understood, and solutions formulated, by the people who are actually impacted – i.e. the various stakeholders involved (cf. Wilkinson, 2004, p2).

Group morphological modelling is an especially suitable method for collective concept exploration, problem structuring and creativity. Structured group dialogue is intended to bring forth tacit knowledge and to foster the creation of new concepts and contexts. There is plenty of evidence that facilitated group interaction consistently surpasses individual capacity, especially in the area of *concept exploration* and *creativity* for “open ended” problems – which wicked problems always are (Blinder & Morgan, 2000; Kugler, *et. al.*, 2012; Mercier *et. al.*, 2015).

Also, the *process* of creating morphological inference models through facilitated group workshops is more important than simply the end-product itself - i.e. the model. Through multi-stakeholder interaction and cooperation, a common terminology, common problem concept

and common modelling framework is created. Stakeholders learn to better understand – and even appreciate – one another’s positions and contexts, a necessary step in creating the conditions for resolving disparities inherent in wicked problems.

For centuries, what is now called Morphological Analysis has been associated with creativity, discovery and invention. This is because the method allows one to look at all of the possible combinations of conditions within a defined problem space, *taking away everything that is impossible*, but “leaving in” *everything that is possible* – even the weird and surprising stuff (i.e. “wild cards”). This is why Leibniz (1666) – working with what he called “analysis and synthesis by combinatorics” – associated it with *ars inveniendi*: the “art of invention”.

As concerns distributed morphological modelling, I see this mainly as an expedient solution when one is not able – for various reasons – to gather a suitable stakeholder/subject-specialist working group in one place for the required time. However, I am “old school” and feel that personal, “on-site” workshop contact – including common meals and overnight engagements – gives the best results. It is certainly more enjoyable. However, improvements are continuously being made as concerns online meeting technology, and distributed workshops are certainly superior to *no workshops at all*. For a discussion of distributed GMA see Zec & Matthes (In Press).

This article is about the organisation and process of facilitating GMA modelling workshops involving “wicked problems”. It is not meant to be a set of “iron laws” to be followed slavishly. I am simply presenting my experience of 25 years of organising and carrying out more than 100 GMA based projects. Since I did not have the benefit of earlier practitioners’ experience in this context, I hope that this “primer” on the art and science of facilitating GMA workshops will help others to find their way more quickly.

2. Prerequisites

As outlined in Ritchey (2011), there are four *necessary requirements* for carrying out GMA workshops for the purpose of creating (meaningful) morphological inference models concerning complex policy-driven problems. These requirements are:

- Sound knowledge and experience of morphological modelling: i.e. theory, method, techniques, pitfalls etc.
- Extensive knowledge of and practical experience in small-group facilitation.
- An appropriate working group of relevant Stakeholders cum Subject Matter Specialists for the task at hand.
- Dedicated, *flexible* software support.

Since I contend that all of these requirements are *necessary*, it would seem pointless to attempt to rank them. However, in my experience, the *least important* of these four necessary requirements is the *software*. Given the most wonderful software support in the world (presently MA/Carma™), a person lacking one or more of the first three requirements will risk making a complete disaster out of the GMA process. On the other hand, given the first three require-

ments, a competent morphologist/facilitator can pull off an acceptable GMA workshop without dedicated software – at least in the sense of *framing* a complex problem area.

[What one cannot do, without proper software support, is to reduce the *total problem space* of the morphological field to an internally consistent *solution space*, and then treat this space as an interactive inference model that will allow the client/user to literally “play with their problem”: i.e. look at it from different stakeholder perspectives, ask it “what-if” questions, change its initial conditions and link it to varying contexts or environments.]

The *least appreciated* aspect of these four requirements is the *facilitation thing*!

3. What is facilitation

The art and science of facilitation began to emerge as a *discipline in its own right* only in the late 1960's. (The *International Association of Facilitators* – IAF – was founded as late as 1994). As such, it is still sometimes confused with the roles of *consultants* and *trainer-educators*. Here are the main differences in these roles (see e.g. Jenkins, 2004):

Trainer: A *trainer* is brought in when an organisation needs to *acquire a competency, knowledge or skill* that is not present, or is insufficiently present, in the organization. The trainer is a subject-specialist teacher who literally *transfers this competency, knowledge etc.* to the organization as a whole or though some of its members.

Consultant: A *consultant* is brought in when an organization needs to (temporarily) *utilize* a competency, knowledge or skill, but does not need to have this always available internally. The consultant is a subject specialist practitioner.

Facilitator: A facilitator is brought in when an organization needs a group-planning, model-building, team-building or decision-making *process* to be *managed by someone outside of the organization*. The facilitator will have skills in *group processes/dynamics* and is totally neutral about the content or subject matter concerned. In fact, the facilitator *shall not* be a subject matter specialist in the area being treated.

Here are some on-line “definitions” of facilitation and facilitator:

- “Facilitation is the process of enabling groups to work cooperatively and effectively. ... in particular ... where people of diverse backgrounds, interests and capabilities work together.” From *Information and Design* (www.infodesign.com.au/ftp/Facilitation.pdf.)
- [Facilitation is] “... the use of a *neutral* to help a group of people conduct productive discussions about complex or potentially controversial issues. The focus of the facilitator's role is to help people communicate effectively with each other.” From the U.S. EPA (emphasis added). (www.epa.gov/ne/enforcement/adr/glossary.html.)
- “A facilitator is someone who helps a group of people understand their common objectives and assists them to plan to achieve them *without taking a particular position in the discussion*.” From *Wikipedia*. (<http://en.wikipedia.org/wiki/Facilitator>.)

This is not the place for a detailed exposition of the discipline of facilitation. There is a flora of books and articles on the subject, and plenty of material on the Internet. The International Association of Facilitators (IAF), as well as a European branch of that organisation, provides training material, discussion forums and other resources.

However, there are a number of really important (well-recognized) “dos” and “don’ts” for the facilitation process *in general* (not just for GMA and wicked-problem) which need to be stressed (see e.g. Hogan 2002; 2003). I didn’t learn these from the literature; I learned them the “hard way”. Like most people my age, I started my facilitation career long before I even knew what *facilitation* was, and I started by making every mistake in the book.

While these “dos” and “don’ts” may seem fairly clear cut, it is very easy to screw up when you start your facilitation career. (I exaggerate these rules a bit, in order to *make a point*. As in every discipline, you can sometimes break the rules, but only when you are experienced enough to know *how* to break them.)

Some Dos and Don’ts for new facilitators:

- As a facilitator, you are concerned with *form* and *process*; you *never argue content!* (You are neither a subject-matter-specialist nor a stakeholder in the subject area that you are facilitating. If you are, then you have no business facilitating the group.)
- Be totally impartial. Never (ever) take sides or choose favourites. If you do, you’re dead meat.
- Keep everything above-board. No hidden agendas.
- Engage; never manipulate.
- Acknowledge all inputs (ideas); it is not *your* job to assess them.
- Don’t fake it! Ask the group for help when you need it. Admit mistakes and never become defensive.
- Get everyone to participate. (This will not be a problem if you, together with the client, choose your group correctly; see below: *Guidelines for selecting the GMA workshop participants*).
- Get the participants away from addressing you, and get them talking to one another. They are the “experts”, not you.
- Encourage diversity; do not expect “first order” consensus. Promote “second order” consensus, i.e. when stakeholders in a group learn to *understand and accept each other’s specific stakeholder positions* – on the basis of understanding the *reasons* for these positions.
- Don’t be a *prima donna*. This isn’t about you. Make yourself inconspicuous when the group is discussing matters. (I usually have a number of chairs placed out around the room, where I can sit down and temporarily disappear. Think of the referee in a boxing match. If he’s really good, you don’t even notice him.)
- Never allow your workshop group to start regarding you – and treating you – like a *consultant*. You must make the distinction between a consultant and a facilitator clear from the outset. (See below “Facilitation guidelines and workshop ground rules”.)

4. Facilitating Wicked Problems with GMA

Facilitating GMA workshops for the collective framing of wicked problems has some special features that can be quite nightmarish at the start of one's GMA-facilitation career. First of all, not only do *you* not know much about the area being treated (as it should be), the subject-specialist-group you are facilitating is often not sure of, or agreed upon, *what the actual problem is that they are supposed to be exploring*. They might define it in quite different terms – depending on their particular stakeholder positions and interests. Certainly, each participant is knowledgeable about certain aspects of the total problem complex (that is why you and the client have chosen them), but nobody knows what the total problem space looks like, since it is most likely that this “space” *has never been properly formulated* (morphed) before.

Furthermore, although real, grounded knowledge about the problem *as a whole* is elusive, even for the workshop group itself, there is often plenty of personal opinion and emotion surrounding the problem complex. There is a lot of room for “attitudes”, territorial defence, insecurity and the like. Also, since we want participants to come from different areas of the (as yet *amorphous*) problem complex, and to represent different aspects of the problem space, this means that they literally belong to different “tribes”: they don't have the same backgrounds; they don't speak the same language; and they don't have the same priorities. As a facilitator, you are going to have to deal with all of this.

Finally, since no one is sure about what the actual (wicked) problem ultimately entails, it is nigh on impossible to tell the client how much time and effort (e.g. how many group-workshop days) it will take to form and explore the problem space, synthesise a solution space, and formulate alternatives. But the client almost always wants to know this *in advance*. The whole enterprise can be loaded with uncertainty and angst, both for the client and for the workshop group.

These challenges can be overcome if the GMA endeavour is *framed properly for the client, and for the workshop group, at the outset*. This is enormously important! You have to literally educate your client, and the workshop group, about what GMA is, how it works and why it is important for them. This sounds like being a “trainer”, but this is not what I mean. You are not training the client to be a “morphologist”; you are teaching the client, and the workshop group, to understand and appreciate GMA. And when the pennies begin to drop, that is when everything opens up and becomes a hugely productive and delightful experience for everyone – including yourself.

For this purpose, I am simply going to list three sets of “guidelines” that I follow for organising and carrying out facilitated GMA workshops. These are:

- A. General guidelines concerning the GMA process**
- B. Guidelines for selecting workshop participants**
- C. Facilitation guidelines and workshop ground rules**

A. General guidelines concerning the GMA process

Establish the “Principal client contact”: This contact person is usually the “buyer” of the GMA workshops and, in any event, has a *vested interest in the success of the workshops*. Unless otherwise designated, s/he is the main contact person with whom to collaborate in the total modelling-cycle process. Sometimes this person will also be a workshop participant; sometimes not.

Give a circa one hour presentation of GMA as a problem structuring/modelling method: preferably to a group of people supporting the principle contact person, along with potential client-based workshop participants. See if you can present it at a Department or Staff meeting.

Establish respective roles: Make sure that the client (“Principal client contact”) understands, and confirms, your respective roles. You are responsible for the (well-) running of the workshop. It is your responsibility to do what is necessary to make the workshop work, in order to produce a meaningful product for the client. I.e., you are the *captain of the workshop*. The client is responsible (with your support) for recruiting competent and cooperative workshop participants. (See section: *Facilitation guidelines and workshop ground rules*.)

Collaborate with the Principal client contact in order to discuss the number of planned workshops days, dates, group composition, venue and other important issues. These include:

The “Focus question”

A preliminary “focus question” for the modelling subject is to be formulated in collaboration with the principle client contact. It has the following generic form:

“What are the most important factors (parameters/variables) concerning ... [*the client’s problem area*]... and how are these factors related to each other”?

The focus question is always provisional – it can (and should be allowed to) change/evolve during the modelling process. This is part of the morphological method.

Group size

What is needed is an optimal trade-off between the knowledge resource-base and the number of participants which can function effectively together. Too many participants will bog down the process; too few will result in an insufficient knowledge base.

Group size has effects on attitudes, behaviour and performance (see e.g. Allen, 2008). There is a non-linear relationship involved here. Group-dynamics is affected by the number of dyadic (two-person) connections that are possible in a group of a given size. If N =number of participants, then the number of dyadic relationships $R = \frac{1}{2}N(N-1)$ – i.e. it increases as a quadratic function (Figure 1).

Above a certain number of people in a group, psychological constraints begin to take place concerning feelings of intimacy, exposure, vulnerability, etc. One of the most important (and detrimental) thresholds is when participants stop talking to their “fellow participants” directly, and start addressing a *collective*. Twenty five years of personal experience in small-group modelling facilitation – at least as concerns GMA modelling of WPs – has convinced me that the “magic number” 7 is, in fact, the optimal group size. You can get along with one or two *less* (although this affects your knowledge base), but *not* one or two *more*: You will feel a significant (negative) difference already between 7 and 8 participants.

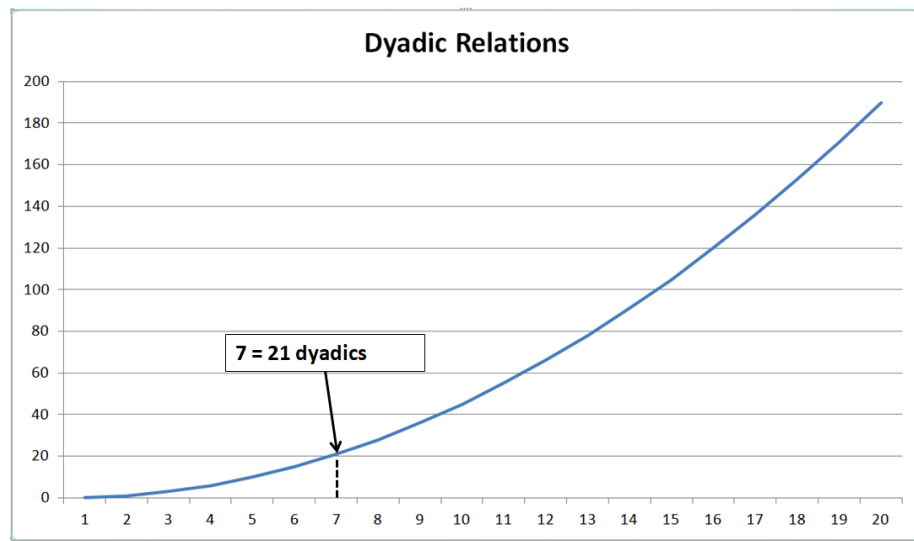


Figure 1: Dyadic relationships between N persons = $\frac{1}{2}N(N-1)$

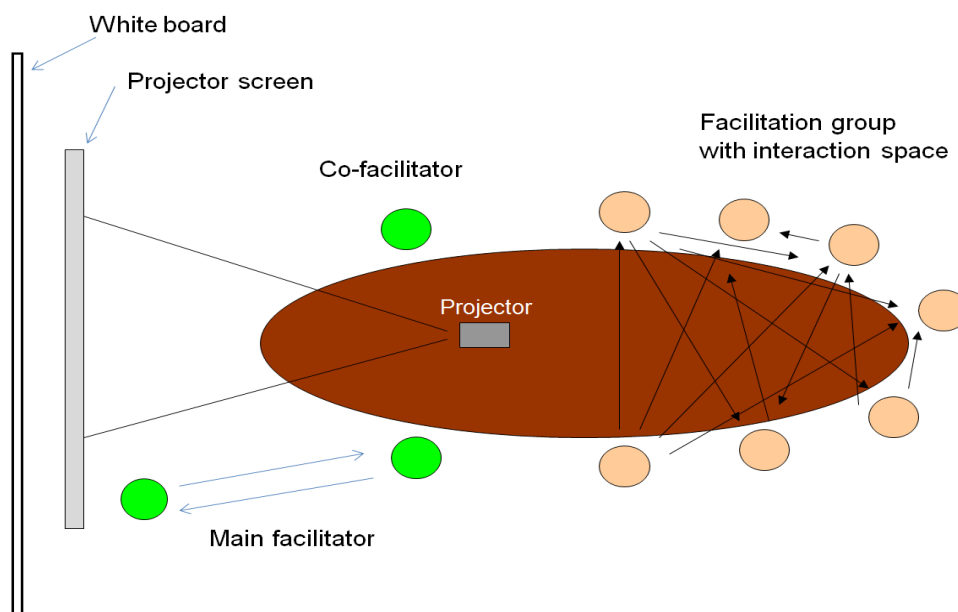


Figure 2. Facilitation space in a roomy room.

Physical setting: The facilitation interaction space

The venue should be a meeting room for at least 15-20 people, i.e. at least twice as many as the number of participants in the workshop. Doing GMA/WPs in a small room will suffocate everybody. The meeting room must be properly furnished and prepared. Everything must work. (Good) facilitators – even if they are slobs in their private lives (which I pretty much am) – are notoriously pedantic when it comes to preparing and utilising the workshop environment. The geometry of the room, the equipment and its placement, must be designed to make possible a *seamless process*. For instance, since I work with both a projector *and* a white-board, I need an easy way to switch between the two, without having to move people around or refurnish the room. I have found the ideal setup as shown in Figure 2.

The process

GMA workshops should be carried out in 2-day sequences. I NEVER do a one-day GMA workshop with a new client or a new WP. You will not be able to complete a full or meaningful analysis-synthesis cycle; you will have to rush through things; and in the end, everybody will be left dissatisfied. You will thereby risk damaging both the status of GMA and your reputation. One-day workshops should only be carried out as a “final get-together” in a series of 2-day workshops, in order to make final adjustments, review and consolidate results, give presentations, etc.

Neither should you run workshops for more than 2 consecutive days. After two days, everybody will be exhausted (including yourself). If several 2-day workshops are to be carried out, these must have an agreed upon time-lap between them (days or weeks) in order that the process is allowed to mature.

Working group selection and composition

This is done by the facilitator in collaboration with the “Principal client contact”. (See section: “*Guidelines for selecting workshop participants*”.)

No “observers”!

Never allow “observers”, i.e. extra, non-participating persons, to be present at the workshop sessions. Do not let the client force these upon you. I cannot tell you how important this is. The workshop sessions must take place in what is felt as a “safe space”, where the participants can speak freely – sometimes about uncertain and controversial issues (see “Facilitation guidelines and workshop ground rules” concerning ROE). You are building an expert team where people will be confiding in one other and developing a team feeling. They will, quite naturally, be uncomfortable and clam up if they feel “observed”. Who wants to be “observed”? If and when the client requests such “observers” you have to help him/her understand that it is against professional standards, it will *undermine the integrity of the working group* and it will risk ruining the workshop results – results that the *client is paying (dearly) for*. If, in the end, the client makes “observers” a *condition* for the workshop to take place, then just say “no”. You will be sorry if you don’t.

Distribution of focus question

Circa one week before the first workshop is to take place, the “focus question”, along with a suitable article on GMA, is sent out to the designated members of the working group. They are encouraged to think about the focus question concerning the most important factors (variables) in the problem area. They are also encouraged to read the article on GMA, but (and let them know this) need not otherwise prepare for the workshops.

Beginning the first workshop day

GMA as a method is presented in detail to the workshop group with examples and case studies that are close (but not too close) to the current problem area. It does not matter if some of the participants were present at an earlier, initial demonstration of GMA. They will be happy to go through it a second time. The preliminary focus question is brought up and discussed, and the group is asked if they are satisfied with it, or if they think that it needs to be adjusted. The focus question is not written in stone – but on a white board.

Analysis phase – development of the initial Morphological Field

I use the white board (not the computer) to start the process of identifying the most important parameters/variables in the problem complex. This is more relaxed and informal, and helps break the ice. As each parameter comes up on the white board, one or two examples of its value range (conditions) are given, in order to help clarify the meaning of the parameter.

This first phase of the GMA process is the most important one and often the most demanding one, since there can be significant uncertainty – or disparity – about what the most important parameters are, and *how they are to be expressed*. “Giving form/shaping” the initial morphological field is notoriously a process of “two steps forward, one step back” and can take a full workshop day or more, depending on the size and nature of the problem complex. This initial field represents the total “problem space” and can contain hundreds of thousands of formal solutions. (This is the most demanding part of the GMA process for the *facilitator*.)

It is natural for both the working group – and an inexperienced facilitator – to want to get through this process as quickly as possible. It’s demanding and “messy”. It feels insecure – like everyone is wandering around in the fog. You want to get out of it. Don’t! Stay in the mess. If you cut this process off too soon, you will be cutting off a little part of the mess; which you will then treat as “the problem”; and then end up “solving” the *wrong problem*.

There are no formal rules here, but we call this “remaining in the mess”, in order to hash out all the possible variables and conditions involved. Remember: the GMA process is not initially concerned with “solving” anything, but with adequately defining and bounding the *total potential problem space*. If you don’t do this part of it properly, then your solution space will be inadequate. That said, the process is iterative, and one can always return to this phase of the total process and reform it. But don’t try to rush through the initial analysis phase.

Synthesis phase – Cross-Consistency Assessment (CCA)

Once an initial morphological field has been constructed, the next step in the analysis-synthesis process is to reduce the total set of (formally) possible configurations in the “problem space” to a smaller set of internally consistent configurations representing a “solution space”. This is what Leibniz called “synthesis by combinatorics”. If the initial morphological field contains less than c. 50,000 possible configurations, this process can most likely be carried out within the 2-day workshop process. If the morphological field contains considerably more than this, the CCA process may need considerably more time. (For a detailed description of the CCA process, see Ritchey (2015)).

At least for a new client, my advice is to keep the first morphological model small enough (5-7 parameters) so that you can go through a whole analysis-synthesis cycle in two days. (You can easily add on new parameters later, which is one of the great advantages with GMA). This will demonstrate the *entire modelling process* for the workshop group, and you will have a first “working model” to present. Even if you have contracted for more than one 2-day workshop, you should have something concrete to show after the first 2 days. *It will be highly appreciated.*

Examine the *structure and coherence* of the morphological model

When a prototype morphological model is completed and compiled, it must be examined carefully to establish its nature and properties – how it coheres and behaves. There are six steps to this examination:

- Model coverage and linkage
- Model coherence
- Renewed discussion about boundary values
- Parameter Activity Check (PAC)
- Examination of single and multi-driver clusters
- Time-line analysis

The models belong to the client, who is supplied with dedicated software in order to run and maintain them. Six months “service” of the model is included in the workshop package.

B. Guidelines for selecting workshop participants

This process is carried out in collaboration with the *principle client contact* and any others who may have relevant knowledge of competent potential participants.

- To reiterate: the ideal group size for morphological modelling is 7 participants, consisting of a mix of stakeholders and subject matter specialists. *No “observers” are allowed.*
- In choosing participants, identify the principal, general areas of competence that are needed for the structuring of the problem space as defined in the “focus question”. Avoid duplicate competencies and avoid competencies that are too specific or specialised (these can be brought in extra if and when needed).

- Besides being experienced in their respective areas of competence, workshop participants should be intellectually curious and enjoy working with new methods, thinking out of the box and exploring new ideas *collaboratively*.
- All participants should be motivated. People who are “ordered” to participate, but do not really want to be there, will not contribute in an effective way (to say the least).
- If possible, participants should come from different (relevant) areas within the organisation, or from different organisations, which *represent different aspects of the problem area and/or different stakeholder positions*.
- If the right competencies can be found, one should also strive for a good mix of gender and age. (BOGSAT – a “Bunch of Old Guys Sitting Around a Table” – is out.)
- Avoid people who represent high, strong leadership positions *if their presence might inhibit other participants’ free thinking and free discussion*. In other words: No “big bosses”. (In our defence sector work we regularly banned the participation of Generals.)
- Avoid participants who think that they already “know all the answers”. GMA is not *initially* concerned with “*finding solutions*”, but of *defining the total problem space of all possible solutions*.
- All workshop participants are expected to show respect for and support the integrity and productivity of the working group.

C. Facilitation guidelines and workshop ground rules

This is an oral (sometimes even a written) *contract* that I explicitly present to, and discuss with, the *workshop group* at the very beginning of the first workshop day. It is both for their benefit – and for *my* benefit as a facilitator – that these items are agreed upon. Here are the main topics:

- The facilitator is responsible for competently and correctly facilitating the *method and the process* and will not allow conditions to be imposed that would undermine the correct application of the method or otherwise disrupt the workshop process.
- The facilitator is not (and should not be) a subject matter specialist or a stakeholder in the subject area(s) relating to the workshop. This means that the facilitator is not responsible for, *and will not intrude upon*, the content or the subject matter of the workshop. The facilitator may ask questions of clarification concerning the concepts being used in the modelling process (so-called “Socratic questions”).
- The workshop participants, i.e. stakeholders and subject matter specialists, *are responsible* for the content and subject matter relating to the workshop.

- The facilitator will endeavour to bring all of the participants into the modelling process and discussions, and strive to bring all relevant issues “to the table”.
- There is no *voting* for allowing concepts to be discussed or brought into the model. Hidden agendas and the censorship of ideas are disallowed. There are minority rights.
- “Rules of Engagement” (ROE) are discussed at the beginning of the workshop. A decision will be made on how to treat the process, the models and all other information generated by the workshop. Is this:
 - Fully open information?
 - Not secret, but not for distribution?
 - Treated with so-called Chatham house rules?
 - Totally secret?

There are any number of other issues and aspects, tools of the trade and pitfalls involved in the process of facilitating GMA workshops. Many of these must simply be learned “on-the-job”. However, I hope that this article has served as a useful primer for those who wish to learn the art of facilitating morphological modelling.

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