

# **Facilitated Business Rule Workshops:** **12 Guidelines for Success**

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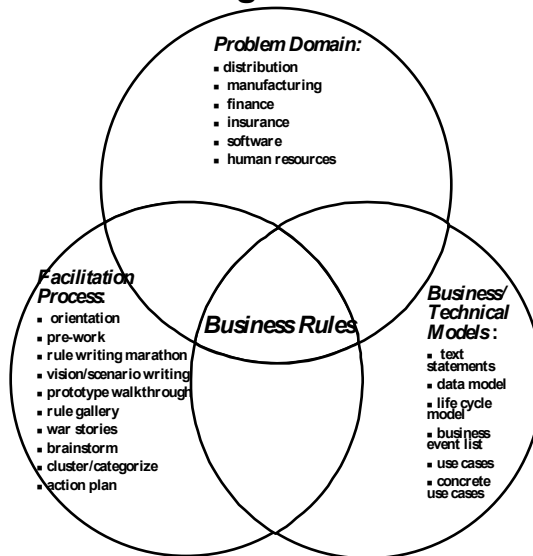
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Based on practical experience facilitating rule modeling workshop sessions, the following are things one must know and do to effectively plan and facilitate these type of workshop session (generically known as JAD sessions).

Using a facilitated workshop approach for modeling business rules requires three interlocking views (see Figure 1): the business domain, the technical and business models to be used as part of the modeling approach, and the facilitation process itself.

## **Business Rules Facilitated Workshops: interlocking views**

**Figure 1**



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### **1. Orient participants early and continually.**

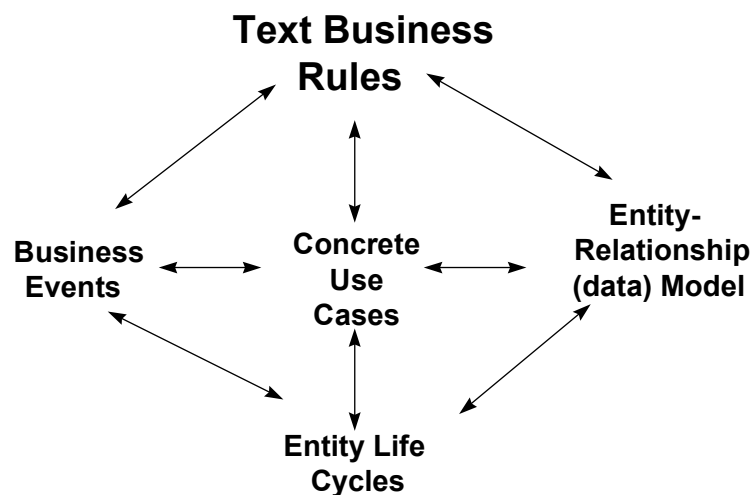
Business participants must understand how the workshop session(s) fit into the strategic goals of the organization as a whole. An orientation session, preceded with a session agenda is critical. The agenda should include the purpose, principles, and process for the session(s), with emphasis on how the workshop will help achieve the overall goals of the program or project which is sponsoring the session. The orientation session provides justification for participants time and should give them a mental model of how business rules look and the process the facilitator will use to generate and validate rules. The orientation session should include:

- review of the project objectives and goals

- timeline for the project
- facilitation session deliverables
- overview to the facilitation modeling approach (see Figure 2)
- examples of the models to be build during the session
- overview of the facilitation process (see Table 1)
- clarification of any prework to be done before the session
- definition and examples (specific to the domain of the project at hand) of business rules

## Business/Technical Models: Facilitated Business Rules Workshop

Figure 2



### xyz Business Rule Workshop Overview to the Facilitation Process

Table 1

Workshop: task-oriented (create the deliverables)
Stick to the ground rules
Iterative (cross-checking and validating continually)
Teamwork required: as whole group and subteams
Make decisions: fix or eliminate suboptimal rules and establish optimal ones
Sponsor/steering checkpoints
Capture issues
Fast-paced
Fun allowed (encouraged!)

#### 2. Nail down definition early.

Definitions (terms) are the foundation for all rules. They provide the substructure and scope of the rule modeling effort. Do not let the group struggle with more complex rules like constraints unless terms are agreed upon.

If the session has been well designed, participants will be included from all the business units that use, make, modify and/or break business rules. This means that each will have their own view of the definition and each view must evolve into one single agreed upon definition. For example, in a company modeling business rules for manufacturing cosmetic products, what is a *package*? The finished goods which is shipped to customers for sale or distribution? The product in a 'filled' state such as in the delivery container without the outside box? The product in a 'finished' state with any inserts such as instructions and promotional material? The group must agree upon a single definition.

In larger firms, it is likely that a working list of definitions can be the starting point. Find marketing literature, internal manuals, training material or any other documentation that will provide a starting point. Let participants review these, find areas of agreement, disagreement, and uncertainty in the definition. Ask questions: "Are there other terms like this?" "Does [term] have different meaning in other [countries/departments/business units]?" "Are there other terms inside this definition which we need to extract?" From there, the facilitator must move the group towards a consensus definition. Consensus means: "I can live with it *and* support it".

### **3. Bring rules to life.**

Showing the rules in a simple prototype gives vitality to the rule modeling process. Writing text rules and constructing visual models is a highly abstract, disconnected activity. Showing participants a simple example of CRUDing (create, read, update, and delete) portions of the rules which have been written allows them to visualize the rules in action. Further it has great value in making good decisions about rules. For example, is location of the product part of the uniqueness of a product? That is, if a product (in a manufacturing domain) has been made with the same ingredients and same manufacturing process, but at a different location, is it the same product? This is a real example of a rule which took many hours of effort to understand and define. Showing a prototype of the rule with 'yes' or 'no' answers (it is necessary for uniqueness or it is not necessary for uniqueness) enabled the participants to define the rule for their company.

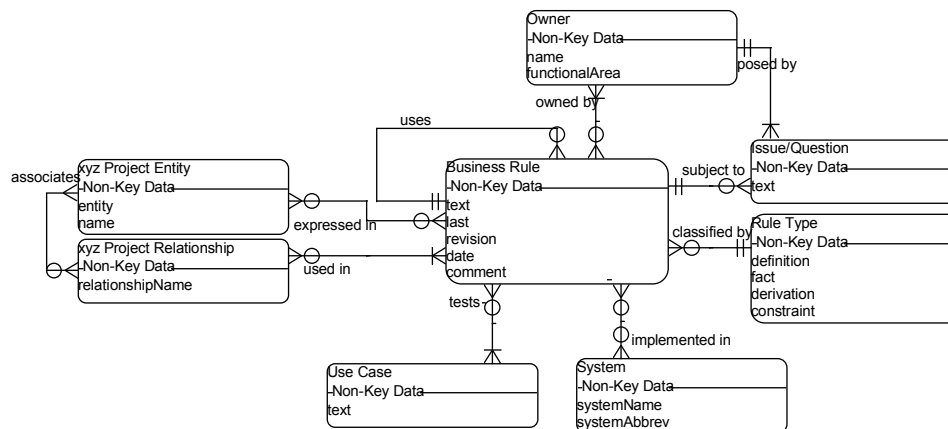
### **4. Have your tools at hand.**

Tools of the facilitator in rule modeling sessions include:

- word processor for scribing the sessions
- data modeling tool
- tool for prototyping (such as Access or a product that will prototype and build the end application, for example Usoft's Usoft Developer or Vision Software's Vision Builder)
- rules repository database (such as a home grown Access database) based on an appropriate metamodel (see Figure 3 for a metamodel I have used)

# Business Rules xyz Project Metamodel

Figure 3



Notes: enforced *after* validation of the rules:

- each business rule classified as 'definition' must have an xyz entity
- each business rule classified as 'fact' must have an xyz relationship

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In each case, the facilitator must insure that knowledgeable and trained individuals are available to use the tool during the sessions. Be prepared to produce the products in the tool before and/or after session hours. For example, in a recent series of sessions, our rules repository contents were printed out prior to a day's sessions. The rules at times were sorted differently as well. For example, we sorted by rules that had questions, rules by type (definitions, facts, constraints, derivations), rules by object clusters (e.g. product, specification, container, market, customer, etc.).

## 5. Iterate the group process.

Design the group processes to permit human thinking to iterate between the big picture and the minute details and between model types that have orthogonal views. This assists in evolving the end product - agreed upon business rules and rule models - in a more natural way. It also allows different individuals to cross-check a rule at different points in the modeling process.

For example, I have used an approach in which the participants spend a half day writing text rules and in the second half day, they generate business events in scope. When the group is larger than four, it helps to create sub-teams to write, in mini-marathons, rules for a cluster of domain terms. They then share their findings with the whole group using either a walkthrough or a 'gallery' (each sub-team posts their products then all sub-teams rotate from model to model while recording their questions and comments), or a combination of these approaches. This allows the sub-teams to get validation and/or challenges for their rules. After the whole group has convened and shared their models, each subteam will then need to fix them back in their sub-teams.

One full iteration will cycle from rule writing in sub-teams followed by returning the whole group to review all the rules and then going back into sub-teams for further revision and refinement based on the whole group's feedback. After each of these cycle, give participants a mental and physical break. Generating business events in scope allows them to move their focus off the task of writing rules yet maintain an orthogonal view of those same rules. Latter in the

workshop, the business events should be used to cross-check the completeness of the business rules.

Similar iterations are : working on business event clusters then conducting a data model walkthrough; doing data model design then writing text rules; brainstorming object (or data) lifecycles then generating concrete use cases; writing attribute rules then walking through relationship rules; sharing ‘as is’ war stories then writing or sharing ‘to be’ scenarios.

## **6. “From Torture Comes Knowledge”**

This is a direct quote, posted as the title of a portion of a data model, from one sub-team half-way through a 7-day rules modeling workshop. Modeling business rules is very hard work, requiring our business partners to learn a lot about the business (that is, hear other points of view), to test their assumptions, and to try out new business and technical models. In the session just noted, they began to understand the real meaning of the business domain they were modeling after using a portion of a data model in conjunction with text rule statements they had written in a prior sub-team exercise. These discoveries were shared and celebrated throughout the facilitated sessions. Many participants felt their brain had been stretched as never before but that in the end, they had learned a lot about their own business.

Do not let the models become torture themselves. Natural language statements are the core deliverable of rule modeling sessions, supplemented by a data model to accelerate prototyping and application development as well as to assist in rule validation. The other models (event, use case, concrete use case, life cycle) all feed and validate the text rules.

Three days into the aforementioned session, I conducted a mini tutorial on data models. The data analyst on the project then followed this tutorial with a walkthrough of the data model representation of their rules which he was developing while they worked on the rules. At that point, after several days of hard work modeling rules as text, the group was ready to use the data model as a tool, in conjunction with a system prototype. They soon began using the terms ‘associative entity’, ‘attributes’, and ‘cardinality’ as shorthand during discussions. One participant (who in the past avoided any systems-like activities) asked a question about a sub-team assignment, “When we’re really smokin’ with cross-feet, should we....?” A comfort level evolved with data models.

In follow-up sessions, the participants became hung up on the data model semantics rather than the clarification of business rules. Therefore beware the activity of data modeling as an end in itself. It must be emphasized to the business participants that the data model’s purpose in the workshop is as a tool to test and validate the rules and that it only partially expresses a subset of the business rules.

## **7. Be prepared to battle with scope.**

As experienced business and technical facilitators know, scope issues and questions always emerge during sessions. Preparation means having the scope pre-defined before the session(s) start, including enumeration of what is *in* and what is *out* of scope. Ask if the concern is scope. Double check with participants: even though this has been defined as out of scope, does it pose a risk to our goals to *not* address this issue? If so, add the concern or question to the “Issues” area in the session workshop room. Return to it at an appropriate time during the workshop.

When revisiting the issues around scope, the group will discover that some of these issues will have been resolved in the work done already. Other issues need to be assigned and addressed outside of the workshop session, while still others can be tackled with the whole group. A savvy facilitator will keep an eye on the issues and periodically test, remove, categorize, cluster, and re-cluster issues with the whole group.

#### 8. Make participants speak using the *meaning* behind the language of the business.

Business participants often talk in codes. The codes vary depending on each functional area in the business. Codes mask business meaning and obfuscate business rules. The facilitator must enforce a session rule: do not speak in codes.

In one series of sessions, the term ‘item’ was used by all participants to mean the product at different lifecycle stages. The item codes were dependent on where, how, and when the product was tracked. It blocked effective rule modeling. Using a big (rubber) hammer when the meaningless term ‘item’ was used, quickly and humorously turned the discussion into a more meaningful exchange.

#### 9. Conduct rule writing tutorials.

Despite the elegantly simple semantics of writing a business rule, provide participants with a jump start. First, assign writing some rules (after a brief overview in both the session agenda package and the orientation session) as a pre-work assignment. This gets participants thinking about elementary rules and also demonstrates how paradoxically simple yet difficult it is to write business rules. During the rule modeling workshop itself, the facilitator should lead the participants through a tutorial on writing business rules. Provide ‘rules for modeling rules’ (see Table 2 for a sampler), then practice together writing some rules. In larger groups when sub-teams of rule writing are used, be sure to assign rule-keeper roles

### **Rules for Modeling Rules:**

**Table 2**

<b>Modeling Rule</b>	<b>Comments</b>
1. Use/reuse existing definitions.	All definitions are captured in the rule repository
2. If a new definition is needed, write it on a half-sheet before using it to describe another rule..	Share any the new definition(s) with the entire group; obtain consensus on the definition and then store it in the repository
3. Use meaningful, precise verbs to connect definitions (the category called ‘ <u>facts</u> ’).	Avoid verbs like “has”, “uses”, “relates to”, “associates to”, “consists of”. Strive for precise verbs which convey the business intent.
4. Use standard expressions for <u>constraint</u> business rules like:	Examples include: <ul style="list-style-type: none"> <li>• must</li> <li>• must not</li> <li>• only if</li> <li>• only when</li> <li>• must have at least one/more than one/only one</li> </ul>
5. Use standard expressions for <u>derivation</u> business rules like:	Examples include: <ul style="list-style-type: none"> <li>• x is calculated from/summed from</li> </ul>

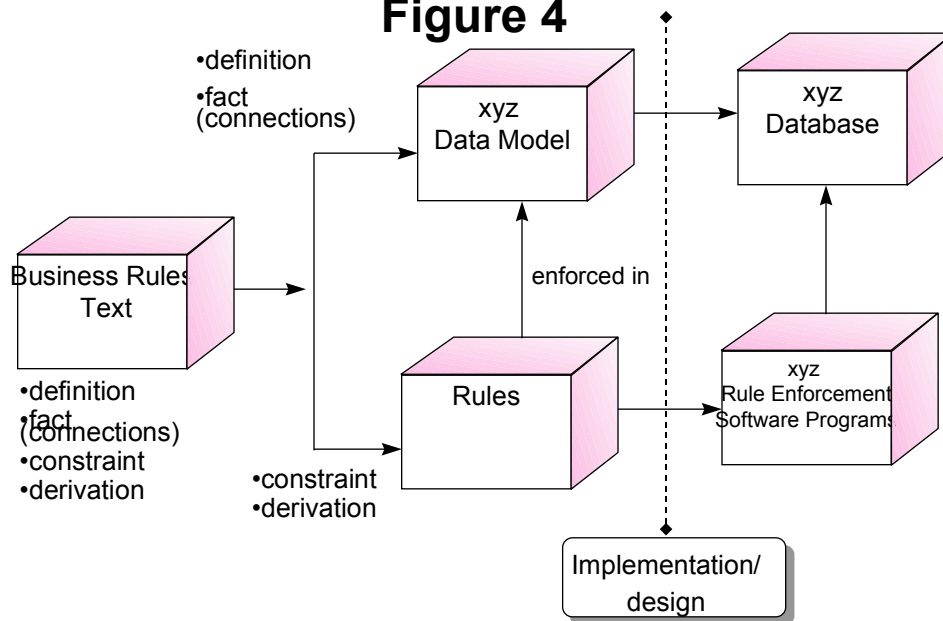
	<ul style="list-style-type: none"> <li>• when x is true, then y is also true (or not true)</li> <li>• z is automatically considered a k</li> <li>• z is inferred from n</li> <li>• when n is true then than g is considered to be a t</li> </ul> <p>if x then it also means y</p>
6. Add new <i>rules for writing rules</i> when it makes sense. Bring them to the whole group for understanding and agreement.	Add them to workshop ground rules.

## 10. “Why are we doing this, again please?”

Despite a solid session orientation, deep in the facilitation process participants will continually ask “*why are we doing this stuff?*”. This is particularly evident when in large group sessions, many points of view about a rule needs to be debated. The facilitator needs to be sensitive to this and periodically review the strategy (see figure 4). Conversely, this question arises as minute details about a particular rule is being defined. Participants can easily get lost in the details of writing a rule and forget what has been accomplished and where the group needs to go. The facilitator will then need to map out tasks along the way (see Table 3 for an example of one I have used).

## Business Rules Strategy

Figure 4



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Set the stage for this ongoing question by having participants share the ‘as is’ situation (war stories about how difficult, unproductive, and costly life is without standardized and managed business rules). This has the added benefit of quickly building camaraderie amongst the participants.

Balance this view with a vision of the ‘to be’ world when rules have been standardized. Permit participants to image, in an individual writing or group writing exercise, what that portion of the business will be like once business rules have been defined and stewardship established. Participants are delighted by their own and each other’s visions and sometimes pleasantly surprised about the business benefits that will emerge with a rule managed environment. These exercises in facilitated sessions reinforce this fact about business rules: structure permits flexibility.

**Workshop Road Map:**  
**Tasks to Fulfill Strategy (reference Figure 4)**  
**Table 3**

Strategy	Task
Transitioning from Business Rule Text to Data Model	<ul style="list-style-type: none"> <li>• assign attributes to an entity</li> <li>• know if entities combine to also be <i>kinds</i> of other entities - a term describes a sub-set of another term:-e.g. “purchased material” <b>is a</b> “manufactured material”)</li> <li>• define attributes which distinguish sub-set entities</li> <li>• assign each <i>attribute</i> as <u>Mandatory</u> or <u>Optional</u></li> <li>• validate <i>connections</i> as <u>Mandatory</u> or <u>Optional</u>; One or Many</li> <li>• find the allowable values for certain attributes</li> </ul>
Transitioning from Business Rule Text to Business Rule	<ul style="list-style-type: none"> <li>• clean up questions</li> <li>• add more rules (events help)</li> <li>• assign owner</li> <li>• assign status</li> <li>• cross-check: definitions must exist for terms used in other rules</li> </ul>
Transitioning from Business Rule to Data Model	<ul style="list-style-type: none"> <li>• test the data model with these rules: (be sure all the information is there to enforce the rule)</li> <li>• test with events</li> <li>• test with scenarios (concrete use cases)</li> </ul>

## 11. Get the right participants.

It is imperative, for any type of facilitated workshop, to have the “right” participants. In the case of business rule modeling workshops, the facilitator must insure that the right combinations of business experts are participating. This includes a mix of people in both their depth and breadth of knowledge and experience with the business domain. There must be people who understand the cross-functional aspects of the business domain. It should also include individuals who have experience in the business domain *outside* the company itself. These people will intuitively be able to ‘think out of the box’ about business rules and helpful to others by sharing their external perspective.



Lining up the right participants is no small task. The facilitator must work closely with the project manager to validate that the participants are the right one, and that an appropriate mix of skills, knowledge and personalities are present. The end result of this preparation is symbolic of the organization's commitment to the workshop goals.

## 12. Use solid facilitation process skills.

The facilitator's job during the workshop is to manage the group process by focusing the group on their common problem using a viable approach, getting everyone to share and by building trust. The skilled facilitator knows how to exploit the power of groups, and yet appropriately respect that power. This respects yields a well-prepared facilitator who understands the criticality of preparation, planning, tools, and follow up.

The facilitator must focus and operate on many levels: individual participants, the whole group's energy, the content of the models, the context for the modeling activity, the problem domain, the capture of group memory in coordination with the scribe(s), the need for shifting perspectives, and the need for mental and physical breaks.

Remember the three interlocking views (Figure 1). Understanding the business and technical models and the business domain alone can be a recipe for disaster without skilled, experienced facilitation. The facilitator will draw on many skills: organizing, summarizing, listening, asking, questioning and training. The facilitator draws from a tool box of techniques which vary depending on the category of facilitation: creativity, decision making, planning, design, problem-solving, team building, strategizing.

A rule modeling session draws on most of these categories, with the primary category being design. The skilled facilitator provides structure to design activities. For example, if the problem domain is large and there are many participants (try to limit it to 12 if at all possible), then sub-teams will be necessary to get some of the rule modeling work done. The whole group is needed during brainstorm, categorizing, validation and walkthrough activities. When sub-teams are used, a structure must be provided since the facilitator cannot manage each team for the whole time. Provide clear roles and responsibilities for these activities (see Table 4 for an example.).

### **Roles for Modeling Rules in Sub-teams:**

**Table 4**

<b>Role</b>	<b>Responsibilities</b>
<u>Hammer</u> person (keeper of the rules for modeling rules) per sub-team	<ul style="list-style-type: none"> <li>• Use the 5 minute rule; create a 'red area' (tool I use for visually displaying Issues) for issues and/or, questions that are holding you up.</li> <li>• Insure your team sticks to the 'section' of the Data Model assigned to you</li> <li>• Insure your team '<u>thinks xxx-co.</u>' - our future vision of the company once the rules have been standardized and stewarded</li> </ul>
<u>Rule Keeper</u> person per sub-team	Insure the integrity of the <u>rules</u> as expressed on the text Rules List AND insure the <u>cross-check</u> against the Data Model as

	<p>follows:</p> <ul style="list-style-type: none"> <li>• Each connection (for each direction of the connection) must have at least one rule on the Rule List</li> <li>• Each term used in a rule on the Rule List that applies to your 'section' of the data model must be defined as a rule on the Rule List.</li> <li>• Extract all the constraint and derivation types of rules from the Rule List that apply to your 'section' and validate they are correct</li> <li>• Any question text you write for a rule will be assigned to you, unless you otherwise specify a team member</li> <li>• Each rule you add will be assigned to you unless otherwise specified</li> </ul>
<u>Data Modeler Keeper</u> person per sub-team	<p>Insure your sub-team has visually depicted your 'section' of the Data Model showing all appropriate:</p> <ul style="list-style-type: none"> <li>• subtype</li> <li>• connection with the connection name (fact) on the line</li> <li>• list all attributes on your core Entity (e.g. Sellable Product, Market, Account, etc.) that are mandatory for uniqueness</li> <li>• write on the portion of the model the rule # to which it applies - all connections (both directions and entity definitions)</li> </ul>
<u>Events Keeper</u> person per sub-team	<p>Extract business events which may be relevant to your 'section' of the Data Model. Walk through each to test if rules exist to handle this event on both the data model and the Rules List.</p>

## Conclusion on Using a Facilitated Workshop Approach

The facilitated approach is an excellent one for business rule modeling. It is an superb forum for converting abstract thoughts, opinions, and ideas into consensual agreements and decisions for business action. Because it requires knowledgeable and willing business participants, having obtained them as participants in an intensive business rules workshop communicates that there is senior business support for effort. The workshop will accelerate the timeframe needed to deliver business rules. The rules will more likely be correct, having been tested in numerous ways by all the participants during the workshop. Additionally, the overall project will have committed advocates in those business participants who have a stake in the implementation and management of the business rules.