Harvesting Business Rules in Workshops

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Introduction

Practical experience in business rule workshop planning, design and implementation has resulted in the identification of issues of significant importance in successfully running a facilitated business rule workshop event. This article will expand on the author's previous discussion of business rule workshops ("Facilitated Business Rule Workshops: Twelve Guidelines for Success," Ellen Gottesdiener, *Data Base Newsletter*, Vol. 25, No. 1, Jan/Feb 1997). A review of what a facilitated workshop is and why using this approach makes good business sense will set the foundation for the discussion of the wisdom gained from practical experience, specifically in the structured facilitation framework, considerations of project chartering and sponsorship, and tailoring and managing the workshop process to meet specific client needs.

What Is a Facilitated Workshop?

A facilitated workshop is a planned collaborative event in which participants deliver products in a short, concentrated period of time led by a neutral facilitator whose role is to help the group manage the process. Prior to the workshops itself, the participants have agreed upon what will be delivered and the ground rules for group behavior (including decision rules, where applicable). The workshop process exploits the power of diverse groups of people joined together for a common goal. The participants act as a sophisticated team, working in a manner to achieve what psychologists call "consensual validation." A successful and productive workshop is fun and energizing, while also being enlightening and exhausting.

The Case for Facilitated Business Rule Workshops

Why use facilitated workshops when using a business rule methodology or approach to a project? In this regard, some background information is helpful. Workshops for IT projects have their roots in JAD (Joint Application Design), a workshop technique developed and trademarked by IBM in the late 1970's. Since then, facilitators of IT projects have evolved the process and tailored it to a variety of project types and technologies. The data around the increased quality and reduced costs of using JAD-like

workshops is impressive. We know that most software defects–60%– originate from the requirements and design phases. Facilitated workshops will reduce those defects by 20% to 60%.

Facilitated workshops are most effective in the early stages of the software development life cycle, i.e., chartering, planning, requirements, analysis and logical design. Workshops are powerful devices to deliver artifacts of project chartering, planning, and requirements/analysis phases. These activities happen early in the life cycle of a business rule project. For a business rules approach, this is a good fit, since it requires early delivery of business rules as the core requirement.

A business rules approach requires early establishment of the infrastructure for capturing, validating and tracing business rules. That infrastructure includes tools (e.g., business rule capture tool) and processes (e.g., way to articulate, specify and test the business rules). A well-designed facilitated workshop requires this infrastructure. In the Facilitated Essentials© method, the workshop event itself is only one part of the process. Extensive deliverables in a variety of formats are needed, including creating pre-workshop input products, conducting a workshop orientation, contracting the workshop event and creating post-workshop products.

Achieving Quality and Speed with a Facilitation Framework

Once workshop participants begin to become productive (after going through group development stages such as the classic "forming, storming, norming, and performing" stages), a group can become very productive, very fast. Sidebar 1 lists several examples which have actually occurred.

Planning Is Everything

How is this achieved? A facilitated workshop must be well designed and planned in order to be successful. A workshop event requires a *process*. The Facilitated Essentials© method employs the TQM (total quality management) phases of PDCA (plan; do; check; act), insuring that the process is working on an ongoing basis. For example, in the plan phase, the workshop contract (often in the format of an agenda) will delineate the decision rules and products. A workshop orientation meeting is conducted to ensure agreement on the workshop process and decision rules and to convey a more complete understanding of the workshop deliverables and pre-work. Process checks are conducted after every new activity or at the end of each workshop day. This ensures that any process adjustments are made in "real-time" and demonstrates the value of process feedback.

The Facilitation Essentials© method provides the framework (See Figure 1) to manage the quality of the process. Like Zachman’s Framework, these columns represent all the

interrogatives for the planning and design of a successful workshop. Attention to all of these dimensions is paramount. Business customers– sponsors and subject matter experts– are involved from the start of the workshop planning process, beginning with identifying the workshop purpose. This promotes a shared sense not only of workshop purpose, but also of project purpose.

Considerations for Project Chartering and Sponsorship

Beginning With the End in Mind

A business rule project, like any project, needs to be properly "chartered," or initiated and planned to promote success. A project charter defines the who, what, when, where, why and how of the project. The charter for a business rule project using facilitated workshop documents the topics presented in Sidebar 2

Managing the Chartering Process

How do you manage the chartering process? One way is to timebox the delivery of the Charter into a Charter or Kick-off phase. This phase can be initiated with a Kick-off or Start-up workshop, which involves the project sponsor and the team. Pre-work for the workshop should include a draft of portions of the charter. The workshop itself should deliver decisions and definitions of missing, incomplete, undecided, or controversial pieces of the charter. Sidebar 3 illustrates what workshop participants have delivered in this Kick-off Phase.

Securing Sponsorship

A project sponsor is the person with the financial and logistical authority to make the project happen. The sponsor is a leader rather than a manager. As leader, the sponsor directs that people *do the right things* (a focus on purpose), unlike a manager who focuses on *doing things right* (a focus on process). Thus, one of the sponsor's responsibilities is to make high stakes decisions during the chartering process and throughout the project, and to do so in a timely manner. These decisions can have a profound effect on the business rule workshop process.

Sponsor Defined Constraints

Project constraints, prioritized in order, have a large impact on how the business rule workshop process will be designed and done. These constraints are time, cost, quality,and scope of functionality (or, in the case of business rules, the business rules in scope). For one business rule project, the sponsor constrained the project to a 2.5 month timeline, the first priority constraint. The specific slice of business rules for a business area was defined in the chartering workshop. Given that the time constraint was primary, what constraint was next in importance? *More* rules for that scope (quantity), or *better* rules (quality)? The sponsor was asked and definitively answered: better rules. Consequently, the workshop process was designed so that business rule discovery and validation were done iteratively and reviewed continually. A scenario testing process was designed for both in-workshop and post-workshop quality control. The business rule capture tool had a facility to trace the status of each rule's quality (completeness and correctness). At any point, the team of participants knew how many rules were not yet approved. Energy went into reuse of scenarios, to get better quality tests designed, more quickly. But getting the rules *right* had a higher priority than generating more rules.

Sponsor Defined Roles and People

Special emphasis also is placed on sponsorship because of the need to establish roles for the discovery, validation and ownership of business rules. The sponsor must define who is the owner, or steward, of the business rules. The business rule owner has the responsibility to validate the business rules. The business rule owner is not necessarily the same person as the project sponsor, just as the project sponsor may not be the sponsor of the business rule workshops. In any case, business rule ownership must be established.

In one series of workshops, the project sponsor and the workshop sponsor (different people) agreed that the participants would have to decide whether a rule was correct by unanimous agreement. In the event that unanimous agreement could not be reached, a specific stakeholder was identified who would make the final decision about a business rule. This fallback position was never used, since the workshop participants felt empowered to get it right and worked effectively to achieve agreement among themselves.

There is yet another reason for defining the sponsor right away in the business rule project. Consider the workshop participants. These people are critical to the business rule workshops. These very same people are the ones most *un*available, however, due to their expertise. They are in high demand, often acting in senior and mentoring roles and are vital to the running of business operations. Securing them as workshop participants is no small feat. That is the responsibility of the workshop sponsor. Additionally, the sponsor must be visible. For example, a sponsor kick-off and/or conclusion is important to energize and close the workshop process for the participants.

In one project delivering standardized business rules for products and materials, expertise along the whole value chain from procuring raw materials through finishing of the

product was needed. This required a large breadth of business knowledge, which no single person possessed. The project manager, who was also the workshop sponsor, spent almost two full months just establishing the cross-functional workshop team. Those individuals were critical to defining the business rules and it was recognized that, in the end, if "substitutes" were used, the quality of the final workshop products would have been jeopardized.

Business Rules Cut to the Heart

Strong sponsorship is needed to handle deep issues. Unlike other software development approaches, the core deliverable in business rule workshops– business rules– cuts to the heart of the business, and does so very soon in the project life cycle. In so doing, business rule workshops tend to raise controversy, conflict, inefficiencies, and uncertainties about the business reasons for the rules– the *why* of the business. Strong sponsorship is needed to handle these issues and exploit the possibilities underlying these sometimes disturbing yet revealing discoveries.

It is necessary to be clear if the business rules to be captured in workshops are for the *current* or *"as is"* business rules, or the "*should be"* business rules. Inevitably, participants will find the weaknesses and problems in the existing business rules and in the business processes, roles, and organizational structure surrounding these rules. The workshop process must provide a means for capturing these issues. Examples of some issues found in business rule workshops are presented in Sidebar 4.

Defining a Business Case

The project charter defines the business case for using a business rule approach. The team and the sponsor must be clear on the reason for using a business rule approach. Based on experiences thus far, the power of a business rule approach tends to fall into the categories enumerated in Sidebar 5.

A business rule business case may be "soft" or "hard". In one project, a "hard" business case was done using three elements: business insight based upon devising *scenarios* (stories) for the improved state of the business, a visual map of benefits and costs called an influence diagram, and an ROI (Return on Investment) approach called Economic Value Added (EVA). For this business rule project, the EVA analysis was done only *after* a series of business rule workshops (a total of 12 workshop days) were held. This enabled the participants and the project Steering Committee to better understand the business rules and the impact of standardization.

In another business rule project involving extensive workshops, the business case was not articulated with dollars initially. Rather, the project purpose – to discover, define and

document the business rules behind a portion of an extensive administrative process– was to explore how to reduce unnecessary cost and risks from inefficiencies in processes which relied heavily on complex guidelines, a long training curve, and human heuristics.

Defining the business case should include defining project metrics, which are the team measures for success of the project. Metrics for business rules also are defined. In projects using business rule workshops, this includes *product* and *process* metrics. Product metrics measure workshop products, e.g., the quality of the business rules, while *process* metrics measure the workshop process, e.g., the speed of business rule discovery and validation in workshops. In both cases, the business rule capture tool must have the capability to record and report on these metrics to team members. Workshop process metrics are tremendously helpful to the participants and the facilitator in continually checking on the value of the workshops and in adjusting workshop processes.

Vision for Business Rules

The charter should articulate a "vision of victory" for the business rule project. What will the world look, feel, smell, sound like when we've discovered, validated and, if part of the scope, implemented the business rule environment? Sidebar 6 outlines some of the possibilities.

In one workshop, a visioning exercise in which participants wrote stories became a powerful means for "forming" the group. Each read his/her story, some of which were rich in detail and imagination. The facilitator captured the core message from each story on a mind map as the story was read. At the end of that workshop series, the group was directed back to the mind map to review how close they had came to the vision. It proved a powerful way to "begin with the end in mind." (S. Covey).

Tailoring and Managing the Workshop Process

Establish the Business Rule Workshop Infrastructure

Each workshop requires a body of tools, techniques and templates. A sampler of the elements which form the basis of an infrastructure for a business rule workshop: appears in Sidebar 7.

As indicated in this Sidebar, a business rule capture tool is an example of a workshop's infrastructure element. It serves as the repository for the rules. The business rule metamodel, or model of a model, is the basis for designing and/or tailoring this capture tool. The metamodel tells us what we must know about the business rules and therefore

what is important to capture and validate about its business rules in the workshops. In addition to providing the base design for the capture tool, the tailored metamodel provides the necessary information to select the appropriate business rule harvest map.

The ERAD methodology metamodel has, as some of its elements: source of the rule, owner, jurisdiction (e.g., local, corporate), source documentation, actors in the business who use the business rule, volatility, priority and more. All business rule-related deliverables (e.g. use cases, lifecycle models, prototype designs, data models, object models, etc.) are validated against the requirements set forth in a business rule metamodel which has been customized to client objectives.

Experience shows that this initial tailoring of the metamodel will change yet again, once workshops begin to deliver models. Metamodel elements– entities and attributes as well as domain values– are added, modified and removed as a result of the learning processes that go on in the workshops. Why is this? The team learns what is really important to know and what is not. Since the initial tailoring of the metamodel occurs *before* the team learns what they don't know, it will change. Therefore, having a business rule capture tool which can be changed quickly is imperative. Additionally, the ability to have an ad hoc query capability during workshops proves to be valuable in enhancing the speed of workshop product delivery and checking on product and process metrics.

Managing Workshop Process Improvement

Not only can a well-run workshop provide the project artifacts (e.g. models, decisions, etc.) in a fast and high quality manner, but also it has the benefit of building a team and establishing a spirit of real collaboration among all team members. Since business customers are participants in these workshops and they provide about 19% of the total effort on IT projects, workshops help in the early stages of a project. They set the stage for maintaining active customer involvement.

The Facilitation Essentials© process uses ongoing "checking" of the workshop process, a closing activity and workshop debriefs. During the workshop, the facilitator must stop and check progress. What is working? What is not? What do we need to do more or less of? The answers to these questions are documented, and the facilitator must be ready to act, perhaps immediately, on that feedback.

An important way to close a workshop is by using a "visit" from the Sponsor and the Stakeholders (other vested parties) for a "show and tell" created by the workshop team. Workshop debrief workshops are essential to team and project process improvement. The debrief is a distinct workshop lasting from two to four hours in which participants come together to stop and together to *learn what they learned* and to create a set of actions for exploiting those learning points.

Conclusion

The facilitated approach is a superb forum for "converting abstract thoughts, opinions, and ideas into consensual agreements and decisions for business action" (Crawford, 1994). Since it requires knowledgeable and willing business participants, having retained them as participants in an intensive business rules workshop communicates that there is senior business support for the effort. A workshop will accelerate the time frame needed to deliver business rules. The business rules more likely will 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.

SIDEBAR 1

Business Rule Workshop Productivity

- In a business rule workshop, participants delivered 35 business rules at the end of workshop day 3 (average 12 per day), then were able to add an additional 20 by the end of day 4 and an additional 35 business rules by the end of day 5.
- In a business rule project, the team of business participants was able to test their data model and structural business rule using 55 scenarios in less than 1.5 hours.
- A business rule workshop delivering business events generated 119 business events, classified them and then removed those not in scope in a 2 hour period.
- In 1.25 hours, a business rule chartering workshop group delivered and categorized 9 risk areas and created 13 risk mitigation strategies for the 2 high probability/high impact risks.
- In a 2-day requirements workshop delivering use cases and business rules, the participants delivered and scenario tested 15 use cases– each accompanied by their business rules, interface prototype, and use case navigation diagram; 16 business rule issues were identified and assigned to the business rule owner (who was present at the workshop) for post-workshop resolution.

SIDEBAR 2

Business Rule Project Charter

- *Why* – The purpose in the form of goals and objectives– the business case;
- *What* – Business functions and business rules in and out of scope; order of project constraints (time, cost, quality, features/functions, project process metrics and project software metrics, business rule metrics, business rule workshop process metrics;
- *When* – Timeline constraints and preliminary plan for the first phase of the project;
- *Where* – Locations where work will get done and, if implementation is involved, locations where the software will be deployed;
- *Who* – Project organization, roles and responsibilities; workshop roles and responsibilities;
- *How* – Project risks and risk mitigation plan, methodologies, tools, assumptions, project controls, quality plan, and knowledge transfer.

SIDEBAR 3

Kick-off Phase

In chartering workshops, participants have delivered the following during the kick-off phase:

- Project vision;
- Decisions on who is the project sponsor and workshop sponsor;
- Decision on project constraints;
- Revisions to draft business case;

- Decision rule process;
- List of business functions that are in and out of scope;
- Documented corrections/additions to project roles and responsibilities;
- Criteria for selecting business rule project scope;
- Visual business rule scope model and textual scope statement;

- List of impacted organizations;

- List of stakeholders;
- List of risks;
- Ranking of risks and a risk mitigation plan;
- Deliverables-based project plan;
- Statement of project strategy (project approach/method);
- List of skills needed for business rule workshop participants;
- List of potential business analysts for the business rule workshops;

- Project communications plan.

SIDEBAR 4

Weaknesses and Problems in Existing Business Rules

- Inconsistent (conflicting) business rules;
- Non-standard business rules (implementation varies by person or location);
- Inefficiency (take too much time– lapse and/or person time– to implement in the actual work process);
- Inability to link business rules with business goals and objectives;
- Lack of consideration of legal issues;
- Lack of usage or access to existing corporate materials or guidelines in which business rules are housed;
- Imprecise business rules.

- SIDEBAR 5

Business Case

- *Proactive* (increased maneuverability and flexibility in delivery of products and services);
- *Defensive* (enforce legal and regularity rules with precision and traceability);
- *Streamlined* (improved operations through greater throughput, less resources and/or less time to deliver and maintain products and services, decreased training/mentoring, increased standardization -- often referred to as: business renewal, knowledge management, business process re-engineering, or streamlining).

SIDEBAR 6

Post-Workshop Business Rules Reality

Some real examples follow:

- Business analysts (end users) will access the business rule daily and this access is part of their normal decision-making;
- The abc Rule Server cuts down on the time needed to confer with another expert;

- Our cost of doing business is reduced immediately because multiple locations are accessing the same rules;
- The xyz Rule Database will be a single point of entry and modification for all business rules globally;
- We know where the rules are, who owns them, and where to go to modify them;
- Trainees learn the business process by referring to the business rules in sample cases and in the business rule site, cutting down significantly on training and mentoring time;
- Our stewardship organization will manage our business rules, insure their consistency, and have the power, credibility, sponsorship, autonomy and authority to do so;
- Changes to business rules will be communicated to all affected people and systems;
- The business rules are complete, usable to all people, and centralized -- while providing local control where commercially viable;
- Business processes will be consistently done.

SIDEBAR 7

Infrastructure for a Business Rules Workshop

- Workshop contract and/or agenda;
- Business rule workshop orientation materials (slides, handouts);
- Business rule metrics capture tool;
- Dedicated business rule participants;
- Definition of roles and responsibilities;
- Business rule capture tool (based on a project-tailored business rule metamodel);
- Business rule modeling route (harvest map)– a selection of models that supplement and surround the natural language business rules;
- Modeling tool;
- Templates for each workshop deliverable, including at a minimum, template for expressing business rules in natural language;
- Business rule articulation process template, illustrating the cognitive process used during business decision-making;
- Business rule validation process template, illustrating the testing process;
- Set of starter scenarios for business rule validation;
- Naming conventions for business rules;
- Workshop decision rule for validating a business rule;
- Workshop workbook and repository;
- Workshop "war" room and supplies for work on the walls;
- Provisions for food and fun.

Figure 1

Facilitation Essentials©: the Framework

Purpose	Participants	Principles	Products	Place	Process
Why do we do things?	Who is involved?	How do we function?	What do we do?	Where is it located?	When do things happen?
· goals · need · motivation · justification	· people · roles · players · contributors	· guidelines · rules of engagement · ground rules · group process rules	· deliverables · models · decisions · plans · next steps · issues for resolution · outputs	· location · venue · space · time	· steps · activities · concurrency · sequence · order