FOUR FACETS OF A PROCESS MODELING FACILITATOR

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Abstract

Business process modeling as a practice and research field has received great attention in recent years. However, while related artifacts such as models, tools or grammars have substantially matured, comparatively little is known about the activities that are conducted as part of the actual act of process modeling. Especially the key role of the modeling facilitator has not been researched to date. In this paper, we propose a new theory-grounded, conceptual framework describing four facets (the driving engineer, the driving artist, the catalyzing engineer, and the catalyzing artist) that can be used by a facilitator. These facets with behavioral styles have been empirically explored via in-depth interviews and additional questionnaires with experienced process analysts. We develop a proposal for an emerging theory for describing, investigating, and explaining different behaviors associated with Business Process Modeling Facilitation. This theory is an important sensitizing vehicle for examining processes and outcomes from process modeling endeavors.

Keywords: Process modeling, facilitation, facilitator, business process modeling facilitation

Introduction

Business process modeling is the design of semi-formal models (directed graphs) of inter- or intra-organizational business processes for the purposes of documentation, re-design or workflow automation (Rittgen 2009). The key objective of process modeling is to reach a common understanding of how a business process works at current or in the future (Burton-Jones et al. 2009). Process modeling attains this goal by logically ordering business activities into models that describe organizational activities utilizing well-defined standardized modeling notations such as the Business Process Modeling Notation (BPMN) (Recker 2010) and corresponding tools.

Process modeling has emerged as one of the most popular and important form of conceptual modeling in practice (Davies et al. 2006). Consequently, a comprehensive set of artifacts such as modeling grammars, methods, guidelines and tools have been developed in academia and by a fast growing ecosystem of vendors and users. However, while the related body of knowledge has matured substantially, comparatively little is known about the actual adoption and ongoing use of process modeling in practice – the process of process modeling. One key activity while gathering process-related information is the act of facilitating workshops with domain experts. During these workshops, the so-called process modeling *facilitator* extracts relevant facts and requirements from the audience and converts these into models by means of a process modeling grammar (e.g., BPMN, EPC). As such, the facilitator plays a critical role as a boundary spanner between the tacit process know-how of the domain experts and its materialization in business process models. Still, the importance of this role to actual process modeling practice has not yet been balanced by a detailed examination of the way that a facilitator fulfills his/her role in facilitating successful process modeling; hence how to act as a *process modeling facilitator*. This paper aims towards a better and more differentiated understanding of the role of the process modeling facilitator. In particular, we investigate the following two *research questions*:

1) What are the different types of facets a facilitator may use during process modeling workshops?
2) How are these facets characterized in terms of behavioral styles?

By answering these questions, we close one gap in the understanding of the process of process modeling, contribute to the wider body of knowledge of facilitation in the context of conceptual modeling and provide guidance to organizations in search for advice for facilitators. In the next section we provide a brief overview about the related body of knowledge. Then we introduce a framework for the classification of four facets of process modeling facilitator. Next, we present the research method applied to examine this framework. In the section that follows, exploratory empirical evidence is presented and consolidated. Next a discussion follows pointing out emerging propositions for an explaining theory that emerged from the data we collected and how our contribution improves the existing body of knowledge. The paper ends with conclusions covering limitations and future work.

Related Work

The non-functional properties of process modeling as a phenomenon have been investigated from different areas of interest. Mendling et al. (2010), for example, present guidelines of process modeling based on their research on structural aspects of models as graphs. Bandara et al. (2005) describe factors and measures of business process modeling, and Rosemann (2006) discusses potential pitfalls during process modeling. Other studies have attempted to derive ontological principles to guide the development of 'good' process models (Recker et al. 2010).

Examining how the process of process modeling can be conceptualized, traditionally, this process has been described as a single-person activity. This perspective highlights the view of one person being responsible for the process of modeling, i.e., to elicit domain knowledge, create a conceptual model, and finally verify the model. In academic settings, this single-person perspective is often used to train students in the competencies of both domain expertise and method expertise. In corporate reality, however, single-person process modeling is the exception. This is because, first, it requires one person to undertake all activities necessary in the process of modeling (viz., elicitation of information, creating a model, and verifying the correctness of the model). However, method and domain expertise are typically distributed amongst different staff members in an organization (Khatri et al. 2006). Second, knowledge about organizational procedures tends to be widely distributed within an organization (den Hengst 2005), which makes it necessary to include a number of complementary domain experts in the process of modeling. Furthermore, other stakeholders might have a strong interest in contributing to the process of modeling, e.g., for controlling or auditing purposes, as project sponsors, or other stakeholders with vested interests (Rosemann

2006). Lastly, the integration of multiple stakeholders in the process of modeling is important for the validation and verification stage, as a single person would be a potential source for modeling errors and subjective bias.

Therefore, more recent perspectives have emerged that describe process modeling as a goal-driven multi-stakeholder dialogue (Hoppenbrouwers et al. 2009) or a negotiation process (Rittgen 2007). In these views, the participating actors can broadly be classified into either domain experts who generate and validate statements about the domain, or process analysts who create and verify formal models. Rittgen (2007) further argues that information is created through a social and communicative process of modeling, and roles within the group develop parenthetically. Each participant can contribute to all phases of the process, although the level of participation may vary with the participant's organizational role and level of knowledge.

The perspective of process modeling as a goal-driven multi-stakeholder dialogue is certainly more conducive to actual process modeling practice. Indeed, process modeling is in virtually all cases performed by means of workshop sessions that are employed as a way to foster collaboration and stimulate participation from consensus between different stakeholders (Sharp and McDermott 2009). Viewing process modeling as a collaborative process that includes dialogue and negotiation as part of the information elicitation, modeling, and verification stages, consequently, places emphasis on the workshop setting in which process modeling is conducted as well as on the key role of the *facilitator* leading these sessions.

Turning to research on facilitation, this notion has foremost been researched in Group Support Systems (GSS) research within the field of information systems (e.g., Bostrom et al. 1993; Anson et al. 1995; Wheeler and Valacich 1996). The literature covers the identification of important features of facilitation (Bostrom et al. 1993) and investigations how facilitators can be supported by Group Support Systems (Griffith et al. 1998).

The term facilitator means, literally, "*the one who makes the process easy*" (Webne-Behrman 1998, p. 1). As a concept it has gained popularity since the late 1960s when the American psychologist Carl Rogers (1967) introduced the notion to improve higher education. Advocates such as Doyle and Straus (1986), Heron (1999) and Schwarz (2002), amongst others, have brought the notion into the realm of the professional organization and uses it to describe values for, and forms of, group facilitation. Since 1994 there is also a viable formal international association of facilitators (www.iaf-world.org) with the mission to promote, support and advance the art and practice of professional group facilitation through methods exchange, professional growth, practical research, collegial networking and support services. In this paper we use the term facilitator to describe a role that has been designated as the caretaker of the collaborative modeling process in a workshop. It could either be a business/process analyst from the outside who has been retained to perform this role or it could be an internal person (e.g. the head of the group or a group member) who has been designated on a temporary or a long-term basis for this purpose.

Vennix (1996) argues that modeling sessions are quite complicated settings. Richardson and Andersen (1995) make a distinction between five different but important roles during modeling workshops: the group facilitator, the content coach, the process coach, the recorder, and the gatekeeper. Notwithstanding these finer differentiations of facilitation, we contend that the role of the facilitator, in all settings, remains to be the person who actually guides the groups' process and elicits the participants' points of view of the domain being modeled in order for the workshop to reach its end. Hence, the role the facilitator is not only the most visible to the group, but also argued as one of the most crucial roles in collaborative modeling work. Vennix (1996, p. 133) states "*In effect, the behavior of the facilitator will either turn the project into a success or into an utter failure.*"

Four Facets of the Facilitator

As the role and behavior of the facilitator is considered as crucial for success in modeling workshops (Bandara et al. 2005), we argue that it becomes important to investigate what different types of facets that a facilitator may use during process modeling workshops and also to elicit which behavioral styles can characterize and differentiate these facets. In light of the variety of purposes of process modeling (Recker et al. 2010), different organizational contexts, maturity levels and further situational variables, it is reasonable to believe that different behavioral facets can be used by a facilitator while facilitating process modeling workshops in different contexts. Inspired by learning theories (e.g. Heron 1999) that have the goal to explore the interaction between teacher and students, we identified two orthogonal dimensions that characterize different styles of acting when facilitating process modeling workshops, viz., *predefined methodology* and *predefined outcomes*. Learning theories appeared conducive to building such a framework, because, similar to learning contexts, in modeling workshops the challenge of effective

facilitator is to strike a balance between how people learn and how people instruct. Also, process modeling has been demonstrated to be essentially a learning episode where participants collaboratively develop modeling and domain knowledge (Recker and Dreiling 2011). We display these two dimensions together with our framework describing four facets of the facilitator graphically in Figure 1 and explore them below.

The *first dimension* of our framework, predefined outcomes, acknowledges the widely accepted difference between the directed teacher versus the constructivist teacher (e.g., Roblyer and Doering 2000) in learning situations. In a directed teaching situation, the teacher is the expert source and the director of concept development through structured experiences. On the contrary, the constructivist teacher is seen as a collaborative resource and assistant, guiding students as they explore topics. In the latter approach students collaborate with each other.

Figure 1. The four facets of the facilitator
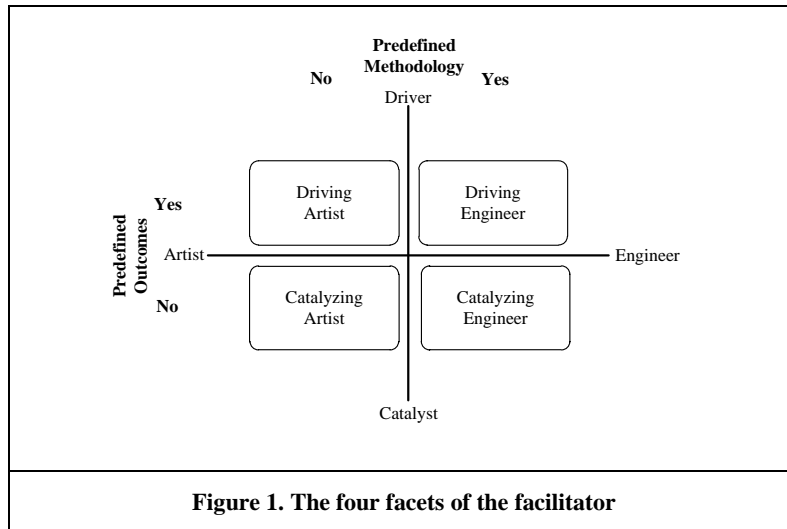
This differentiation can also be transferred to the domain of facilitating process modeling workshops. Based on whether there is a predefined outcome of the modeling exercise or not, two distinct categories can be distinguished; the driver versus the catalyst. **The driver** enters the workshop with a predetermined solution in mind, drives towards a certain perhaps not fully disclosed agenda, and has a clear mind of what he/she wants to achieve. Examples for predefined outcomes could be the reduction of the throughput time of the process by five days, the complete automation of the process or a reduction of the cost of each process execution by 10%. These outcomes are typically very specific and usually originate from a corporate mandate behind the project, and not just desired outcomes on a meta-level (e.g., ensure that all processes are documented in a certain modeling notation such as BPMN). The driver defines a successful workshop as one during which the desired predefined outcomes have been achieved, i.e., where the participants have bought into, and achieved, the predefined results. **The catalyst**, on the other hand, does *not* have a predefined outcome in mind. Instead, the catalyst makes sure that issues, objectives and outcomes emerge as a result of a highly interactive and collaborative workshop and pulls outcomes from the audience. Success in the eyes of a catalyst is defined by high levels of consensus and the achievement of an outcome that 1) was not predefined and 2) is perceived as being satisfactory in the view of the participants.

The *second dimension* of our framework, predefined methodology, is dedicated to the existence and use of tools, techniques and methods that facilitate both modeling and facilitation itself. Looking at the outcome of a process modeling workshop, viz., the agreed process design, this design can take the form of an engineering-like blueprint (the "scientific" model), or can be an adaptive artifact that leaves significant room for flexible decisions during the execution of the process (the "artistic" model) (Hall and Johnson 2009). The idea of a predefined methodology therefore seeks a high level of predictability of the process behavior, constraints variation and provides well-defined guidelines for all participants. The alternative is to avoid a stable process specification in advance and instead to create a flexible design that leaves the determination of the most appropriate process to the individuals in charge for the execution of the process.

Transferred to the domain of facilitating modeling workshops, this leads us to two other distinct categories; the engineer versus the artist. **The engineer** seeks comfort in problem solving as well as in prescriptive and detailed methods, tools and templates. Activities in a workshop led by the engineer tend to be well structured, follow a predefined schedule and are comparable across multiple workshops. An engineer relies heavily on the existence of

well-structured and methodical techniques and procedures for the successful conduct of a workshop, but also his/hers expertise to engineer solutions and solve problems. **The artist**, on the other hand, makes the agenda and activities up 'on the fly' and follows not a predefined methodology. Based on the purpose, participants, emerging themes etc. workshops will take individual ways. The artist requires a strong and convincing personality and engages participants in a creative, non-text book oriented manner. These two dimensions are orthogonal as well as disjoint in their operationalization. Thus, when combining these two independent dimensions and their stereotypes, we can derive four facets of a process modeler facilitator: *the driving artist*, *the driving engineer*, *the catalyzing artist*, and *the catalyzing engineer*. We discuss these four facets of a process modeling facilitator in the following.

The driving engineer seeks support for a predefined outcome during the workshop and uses structured and pre-defined procedures for modeling and facilitation. He/she systematically frames and expertly solves the modeling task at hand and is well grounded in a wide range of structured tools, techniques and methods. Workshops conducted by a driving engineer have a comparable structure and process, and the outcomes can be anticipated, if the facilitation is successful. A driving engineer will be engaged, if the project sponsors need an individual that can gather support for a desired result and if a well-defined set of tools, techniques and methods exists. Thus, the organization will have to have a high level of methodological maturity.

The driving artist also aims towards support for a predefined outcome. However, unlike the driving engineer, he/she utilizes his ability/passion to govern the situation via personal traits and creative problem-solving abilities. The facilitator engages the audience in a spectrum of activities, shows flexibility where required, but aims for unconditional support for the predefined outcome. A driving artist is desired, if there is a lack of tools, techniques and methods, or if it is believed that the audience will respond to a more adaptive style of facilitation.

The catalyzing engineer, in contrast to the driving engineer, does not anticipate the outcomes. He takes full benefit from a long list of available tools, techniques and methods in order to seek input from the participants and facilitate consensus in achieving an emerging solution. He/she will have to educate the participants on how to best use these artifacts, but the actual outcome of the workshop is completely driven by the participants. As such, the actual result of the workshop will only emerge during the session. A catalyzing engineer will be involved, if the project sponsors are uncertain about the desired result and require an investigation into the ideas and desired outcomes of the participants. Unlike the driver who can be seen as an agent of the project sponsor (top-down approach), the catalyst will be in charge to extract a consolidated viewpoint from the participants (bottom-up).

Finally, **the catalyzing artist** is characterized by the absence of both, a predefined solution and a predefined methodology for the facilitation. This type of process modeling facilitator hence transfers the responsibility for progress in the modeling workshops to the participants and supports the group by inspiration, encouragement and leadership. This is the most open of all forms of facilitation. It can be expected that a catalyzing artist is of relevance in very uncertain circumstances where the facilitation techniques have to be defined on the spot and in accordance with the emerging results. The organization will typically be in early stages of its underlying initiative.

Having defined four facets of a process modeling facilitator, we now proceed to develop a better understanding of the relevant attributes of each of the four facets, and to identify further differentiating characteristics. To that end, we describe and discuss ten pairs of behavioral styles that can be observed when facilitating a modeling workshop.

Dyadic Styles of Facilitation Behavior

Anchored in related work we have identified ten styles of facilitation behavior, which enables us to describe the four facets even further. Each style is described through a dyadic relationship between two opposite behaviors that explain a facilitator's behavior during process modeling workshops.

Communication style: talks vs listens - In order to derive and construct knowledge about business processes, communication related to the domain and the associated requirements is essential. (Rittgen 2007; Hoppenbrouwers et al. 2009). In relation to the practice of facilitation, Webne-Behrman (1998) argues that the facilitator is a communicator, modeling effective communication and supports participants to understand each other. Emphasis in regard to the facilitator's behavior is therefore to listen and monitor the communication performed within the workshop (Vennix 1996). However, in order to support the group effectively, the facilitator also has to be a part of the dialogue. Webne-Behrman (1998) puts forward guidelines such as *encouraging*, *clarifying*, *restating*, *reflecting*, *summarizing* and *validating* as important principles to use during facilitated meetings.

A facilitator's behavior during modeling can thus be characterized alongside two extremes: he/she **talks** versus he/she **listens**. If the facilitator's behavior is dominated by talk, he/she proactively guides the dialogue and tends to educate the audience. If the behavior is listening, then the facilitator is more reactive in the dialogue and stresses the need to learn from the participants rather than dominating the communication processes through proactive engagement (viz., talking). Following this dichotomy, we can assume that a driver will rely more on talking as defined outcomes need to be communicated in order to be achieved, while a catalyst instead may tend to listen in order to derive the results from the participants.

Power style: assertive vs empathic - A social situation such as a modeling is always imprinted by power (Introna 1997). The facilitator influences the power setting by his/her behavior. In learning contexts, Rogers (1967) argued that one of the qualities in facilitating learning is when the facilitator adopts empathic understanding as style. This is when he/she has the ability to understand the participants' reactions from the inside, when he/she has a sensitive awareness of the way the process of the modeling seems to the participant. If so, the likelihood of significant learning is increased (Rogers 1967). Still, a facilitator may sometimes during modeling have to take an opposite position and in an assertive way decide something or everything during a workshop (Heron 1999). This is also acknowledged by Rogers (1989, p. 349) when he describes assertive confrontation as facilitating style: "*I tend to confront individuals on specifics of their behavior. 'I don't like the way you chatter on. Seems to me you give each message three or four times. Wish you would stop when you've completed your message'.*"

Following these observations, a facilitator can thus either, in its extreme, be **assertive** or be **empathic** (viz., non-assertive) in the modeling workshop. When an assertive facilitator leads the modeling, then the facilitators' ambitions dictate the modeling. A non-assertive facilitator is more in the hands of the audience and lets the participants shape the conversation and agenda. In light of our proposed four types of facilitation, we expect that drivers tend to be assertive while catalysts tend to be non-assertive.

Adaption style: static vs flexible - The conduct of a modeling workshop can have different degrees of predictability (Vennix 1996). Richardson and Andersen (1995) posit that some modelers tend to follow a script of the meeting in detail. The facilitator, in these cases, can be seen as crafting a detailed, predefined template for the execution of the workshop with a detailed agenda and a fixed (static) allocation of tools, techniques and methods for each activity within the workshop. The fixed actions course is then just the playing out of this predefined template. Although this might be very useful, according to Vennix (1996) this approach may also entail the danger that the facilitator might adhere too strictly to the pre-defined template and, in consequence, may not be flexible enough to meet different needs from the participants along the way during the workshop. Alternatively, as advocated by Suchman (1987), he/she instead can value a more flexible approach, viewing plans/preparations as resources for situated actions, and adjust his/hers successive actions depending on the emerging events within the workshop. Rogers (1989) had the view that "everything planned" should be avoided if the group members are not fully in on the plan as the facilitator. Instead he valued spontaneous behavior with or without procedures. What happens is up to the group.

Based on these arguments, we can thus characterize a facilitator's adaptation style as either **static** ("everything planned") or **flexible** ("spontaneous"). Consequently, we assume that an engineer will tend to follow a static approach taking full benefits from the set of tools, techniques and methods at his disposal while an artist strives, out of necessity or out of choice, for a flexible adaption style.

Disagreement style: embraces conflict vs avoids conflict - Disagreements are an important factor in collaborative modeling as the final model is a materialized consensus, defined as the reached agreement between relevant stakeholders (e.g., the majority of workshop participants). While perfect consensus would be the agreement of all involved stakeholders, disagreement rooted in so-called problem people (Doyle and Straus 1986) may threaten a facilitator's efforts to create equal participation among group members and reach ultimate consensus. In these situations, according to Schein (1987), four types of intervention strategies exists, viz, *exploratory*, *diagnostic*, *action alternative* and *confrontive* interventions. The latter two imply that a facilitator's behavior in relation to disagreements can be characterized by **embracing conflict**, and the former two characterizes strategies where **conflict** is **avoided**. A facilitator who embraces conflict faces disagreements head on. The tactic action alternative interventions, for instance, focus on questions related to what can be done about something hampering the situation, while confrontive interventions directly focus on a participants own behavior. In contrast, a facilitator that avoids conflict tries to manage disagreements by other means than making the conflict explicit. Schein (1987) describes two such tactics; exploratory interventions encourage a person to go on talking, to tell more. Diagnostic interventions aim to trigger participant to think about something else through questions. We would expect that drivers most likely would embrace conflicts on the way to the defined results, while catalysts rather avoid conflicts.

Control style: centralized vs decentralized - The responsibility of the task to be performed during the modeling event can either be executed in a centralized or in a decentralized manner. Webne-Behrman (1998) argues for the latter as an effective strategy when describing the practice of facilitation. In her view, a facilitated group is not one whose process is owned by one or a few; the workshop belongs to all. According to Heron (1999) this style means that the power to make decisions has been delegated to the participants themselves. The facilitator in this setting of autonomy encourages people to play new roles within the workshop and stimulate that they themselves take ownership of the outcome that the workshop delivers (Webne-Behrman 1998). According to Rogers (1967), this idea rests on the assumption that the facilitator trusts the capacity of the participants to develop and take responsibility for their own future. If this is the case then the facilitator can provide the group with opportunities and permit the participants to choose their own work direction. Heron (1999), however, argues that delegation is only one mode of control style in a group setting, where, on the opposite side, the centralized style exists, in which the facilitator directs the workshop. A facilitator, who values a **centralized** approach, does not divide the modeling group into sub-groups with individual and independent tasks. Instead, he/she remains the center of attention. This behavior, we believe, can be expected from engineers. In an opposite fashion, a facilitator could **decentralize** the responsibility of the modeling task to the participants. He/she then releases the control and lets the participants take responsibility for reaching consensus. This could involve multiple streams of conversations that are going on in parallel. We predict that artists will show this type of behavior.

Model behavior: does model vs lets model - The act of performing the actual modeling as part of modeling workshop may also differ between facilitators. Some do all the modeling in order to ensure high degree of syntactical correctness and overall consistency across the models. This style is advocated by Vennix (1996) who states that the facilitator either himself/herself simultaneously facilitates the dialogue as well as records the model from the modeling dialogue, or uses a recording assistant who is capable of listening very carefully and translating participants ideas into models following the modeling language used. In this scenario, the workshop participants play the sole role of domain experts in the design of the model. In contrast, other advocators of modeling, e.g., Persson (2001), argue that the facilitators should let the participants do the modeling, in turn transforming them into modelers and not just utilize their domain expertise during the workshop. In this scenario, the facilitator will merely empower, encourage and govern the act of modeling rather than partaking himself/herself. Based on this contrast, we would expect the engineer to tend to do (large parts of) the modeling, **does model**, whereas the artist will rather depend on the modeling talent of the participants, **lets model**.

Facilitation behavior: does facilitation vs lets facilitate - The act of doing facilitation, similarly, may differ between individuals. Some facilitators do all the easy making, using the participants only as contributors in the workshop. Other facilitators let participants facilitate the work effort and co-opt them all or certain group members as facilitators. Indeed, Webne-Behrman (1998) claims that one of the most important responsibilities of a facilitator is to commit to the norm of sharing his/her role with all other participants in the workshop. Even if someone has been formally designated for such a role, a fully empowered group may still end up to be the one that takes responsibility for the group facilitation itself. This is core in the facilitator style originally depicted by Rogers (1989, p. 352) who argued that in a situation in which a participant needs support he often relies on the wisdom of the group rather than the facilitator's own therapeutic potential to support the participant in question: "*It makes me realize what incredible potential for helping resides in the ordinary untrained person, if only he feels the freedom to use it.*" Again, we expect engineers to tend to control the facilitation (**does facilitate**), while artists will tend to allow joint facilitation (**lets facilitate**) in order to benefit from a variety of facilitation approaches and the group as a source of knowledge and inspiration.

Involvement style: involves vs ignores - At the core of the facilitator style that Rogers (1967; 1989) describes lays the involvement of the participants in the work performed, and the way that the facilitator strives to involve himself/herself with the group (e.g., in order to achieve empathic understanding). Notwithstanding the benefits that may emerge from a deep involvement with the group, a facilitator may still be required or advised to use ignorance as a tool during collaborative work. Such tactic, however, should be based on an agreement between the facilitator and the participant that the person in question wishes to be on the sideline in regard to the group. Rogers (1989, p. 345) argues: "*Silence or muteness in the individual are acceptable to me providing I am quite certain it is not unexpressed pain or resistance*". Sharp and McDermott (2009) identify another form of ignorance during modeling workshops, which they label constructive ignorance (i.e., asking "dumb" questions). They account that, when applying constructive ignorance, they often uncover important facts or ideas and discover that an "off the wall" comment from a participant was rather on the point. It is our interpretation that a facilitator who in its extreme **ignores** the participants has a rigid view of the rights and wrongs, the truth or the false in a situation. Active

contributions from *every* participant are then not a success metric for the workshop. An example for this would be a facilitator who, during a process model validation phase, would ignore quality-related input from the participants and instead performs the validation individually, ignoring all other comments or inputs. This, in our opinion, describes the typical behavior of a driver. In contrast, a facilitator who **involves** the participants in process modeling has an open, unbiased mind of what is right or wrong, true and false in a situation. He strives to engage participants as much as possible. Hiding in such workshops is impossible (pausing, however, might be acceptable to some extent). We thus expect that catalysts tend to show this behavior.

Work style: structured vs unstructured - Webne-Behrman (1998) advocates that it is important for a facilitator to observe a situation without prejudice and to apply prior experience only as a guide, not as a constraint, for the work. This approach, in turn, describes a rather unstructured approach to process modeling work. Sharp and McDermott (2009) on the other hand point out that a facilitator in a process modeling setting needs to have an overall process map, the process framing material, a parking lot list, and a session plan posted in the modeling room, in order to use these instruments for successfully navigating the workshop. In light of these recommendations, a **structured** facilitator possesses and executes a systematic way of working when performing modeling and facilitating the group. The workshop requires substantial planning in advance and the schedule will be well defined and the procedure is predictable and reliable. This is a typical characteristic of an engineer. The **unstructured** facilitator is more open in his/hers work style, makes decisions during the workshop ("ad-hoc") and the entire event is far less predictable or repeatable in terms of the activities that take place. These attributes can be used to define the artist style of facilitation.

Domain knowledge style: domain agnostic vs domain expert - A facilitator may possess deep knowledge of the business (or type of business) being modeled and thereby can be an **expert** in the specific **domain**. Webne-Behrman (1998) underlines that knowing the context or purpose of the problem being posed may be an important element in the practice of facilitation. For a facilitator it may be important to understand the culture and domain from which the problem has arisen. In order to be able to identify the right problems and subsequently resolve them during a workshop, a contextualized domain understanding is critical. This view, however, is critiqued by Schwarz (2002) who puts higher emphasis on process and method expertise, which implies that the facilitator should be the one who has the ability to contribute to the group's procedural effectiveness. Consequently, this approach downplays the facilitator as a content expert. Instead, he/she may lack knowledge about the domain being modeled, and perhaps even be indifferent in regard to the business or participants that are involved in the modeling workshop, which, in turn allows the facilitator to remain detached and unbiased about the domain and related issues that may surface during the modeling. We believe that a domain expert style provides the facilitator with certainty and intricate knowledge, in turn describing a typical desired attribute of an engineer. An artist relies far less on domain expertise and instead depends on abilities, skills and techniques to develop domain knowledge during the modeling.

Four Emerging Propositions

Each of the four types of facilitation we displayed in Figure 1 above describes a distinct way of approaching facilitation during process modeling workshops. We argued above that the ten dyadic styles of facilitation behavior provide further insights into the different attributes that characterize four facets of a facilitator. Based on these discussions, we now contend that, consequently, each facet of facilitation can be characterized through a distinct profile that is made up by combining the manifestations of the ten dyadic styles of facilitation. These four profiles, in turn, can be captured in four main propositions about the behaviors of process modeling workshop facilitators, and are visualized in Figure 2. We describe each proposition, in turn.

Proposition 1 – We propose that a **driving engineer** is a facilitator who clearly seeks to dominate the agenda. In order to do so, he/she will have to do most of the talking. In alignment with his/her engineering approach, he/she will follow a static methodology and embrace conflicts to remove roadblocks. As the center of attention, he/she will do most of the modeling and not delegate the facilitation. He/she will limit involvement of the audience, prefer a structured approach and does not rely on domain expertise.

Proposition 2 - We propose that a **driving artist** is a facilitator who tends to talk and dominate the modeling situation. He/she could either be flexible or static depending on the situation. This facilitator takes conflicts head on and does all the facilitation, involves members of the group when needed, but also ignores members when their views do not fit the agenda. He/she tends to be a domain expert, works in a structured way, and centralizes the control, but combines modeling alone with letting other members in the group become modelers.

Proposition 3 - We propose that a **catalyzing engineer** sometimes talks and sometimes listen to the involved participants, depending on the requirements and context of the modeling situation. The catalyzing engineer dominates the modeling situation or may act in an empathic style. The behavior is highly flexible and conflicts are either avoided or taken on head on. Modeling as well as facilitation are sometimes performed by him/her and in other situations distributed to the participants. Despite the high level of flexibility and involvement, the behavior will be perceived by the participants as structured. The catalyzing engineer may or may not be expert on the domain.

Proposition 4 - We propose that a **catalyzing artist** is domain agnostic. He/she is indifferent to the business being modeled. The communication style used is listening and being emphatic. Based on changes occurring during the workshop, the facilitator continuously adapts the plan according to new insights emerging during the modeling process. Conflicts are avoided and the responsibility to model and facilitate is on a regular basis transferred to the participants. The overall characteristics of the catalyzing artist are that he/she involves the participants and in doing so supports the modeling effort in an unstructured and emerging fashion.
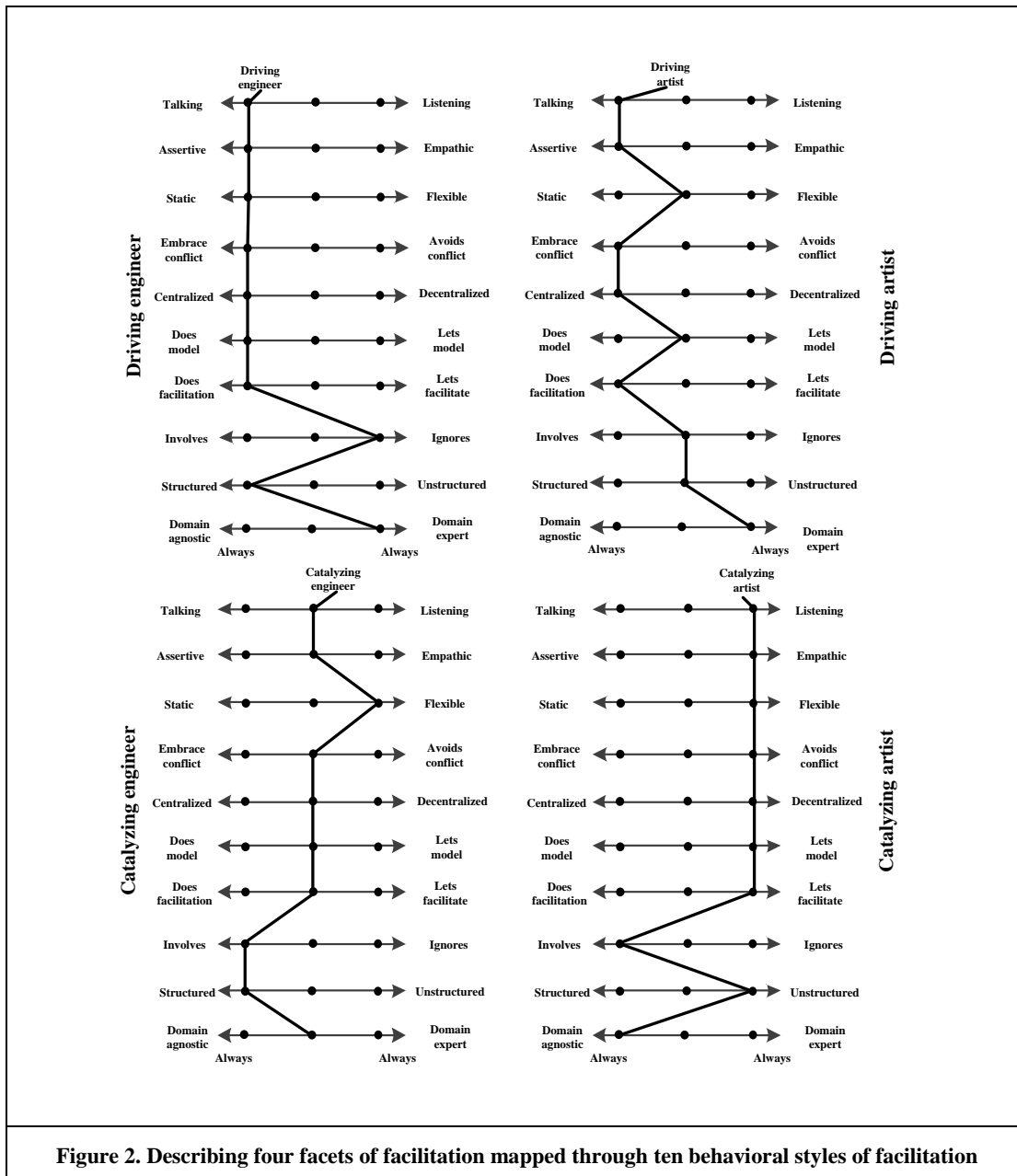

Figure 2. Describing four facets of facilitation mapped through ten behavioral styles of facilitation

Research Method

Having laid out four propositions about four facets a facilitator may display during process modeling workshops we set out to gather empirical data on the relevance as well as the manifestation of these four facilitator facets, and to contextualize the facets with initial preliminary insights of the consequences of these facets on the modeling conduct and outcome. To that end, we selected a interpretive research strategy (Walsham 2006), on the basis of four key arguments. First, there is no prominent theory available to guide the investigation. Second, we formulated tentative propositions as opposed to specified hypotheses that could be tested in an experimental setting. Third, the nature of our research questions ('what' and 'how') suggests the application of qualitative, interpretive methods (Gable 1994). Finally, a specific emphasis of our research is on the exploration of the specific socio-organizational setting in which facilitation occurs. Such a setting is conducive specifically to case research (Walsham 2006).

Specifically, we conducted six in-depth semi-structured interviews with experienced analysts that have experience in process modeling workshop facilitation. We selected interviews over participant observation because the latter would have induced obtrusion bias into our investigation (Trochim and Donnelly 2006). Also, interviews allowed us to more precisely examine different behavioral styles that may or may not have been readily observable in a particular observation context. Each interview was focused on one particular case of a process modeling initiative as part of an organizational re-design project. To complement the interview, after our initial data analysis we administered closed-ended structured questionnaires on selected aspects of our investigation for further analysis. Each interviewee was carefully selected from a well-known pool of process management professionals that form part of a national (Australian) community of practice. All interviews were conducted in December 2010 in Brisbane, Australia. The interviews followed a semi-structured interview protocol developed based on the facets and styles discussed above. The interview protocol was structured as follows:

1) The interview partner was asked to provide demographic details and contextualize the setting of work.
2) Views on the role and importance of the facilitator of a modeling workshop were gathered.
3) The four facets of facilitation were presented and the interview partner was asked to position which facet generally was used in the conduct of process modeling workshops today in the organization.
4) The 10 dyadic styles of facilitation were then presented and the interview partner was asked to identify those styles of the facilitators' behavior that were generally viewed favorably by the organization.

All interviews took approx. one hour, and were recorded and transcribed. The closed-end questionnaire was based on a specific boundary condition focusing a specific workshop purpose. Ten questions were constructed directed to each of the ten proposed behavioral styles. To aid positioning, we developed a seven point Likert scale anchored between the two dyadic endpoints for each style, with the middle value (4) representing a neutral anchor.[1] In addition to the positioning, related comments were encouraged.

Findings

Semi-structured Interview Findings

Case 1: The Shared Service Provider - In this case site, a shared service provider within a state government, we found the Process Design team to regularly enter workshops well prepared. Related process documents are studied, standard operating procedures extracted and any further process-related information is identified. The facilitator typically designs a draft process model before the workshop in order *"to avoid starting from scratch"*. The role of the facilitator can thus be seen as *"setting the context"* and *"drawing out the required information"*. The aim is *"to put the responsibility to the participants"*, but *"to have the tools and methods"* in place to guide the process and outcome. At this case setting, there was no formal training for facilitators in place. The methods and tools are more related to process modeling (e.g., SIPOC, root-cause analysis) than pure facilitation techniques. We found the preferred styles to be listening and a structured, a predefined approach with inherent flexibility so that alternative methods could be used for specific scenarios. While centralized and focused on doing the facilitation themselves, the act of modeling is preferably done by involving participants. Having structure is essential, and so is domain knowledge as it provides the facilitator with the required expertise. Personality, experiences and familiarity with

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[1] The detailed quantitative responses are available on request from the contact author.

tools and methods were seen as factors that determine the selection of the appropriate approach to facilitation. We thus describe the facilitation facet generally preferred by this organization as the catalyzing engineer.

Case 2: The State Government - The three-year old Program Office in this state government department differentiates and uses, based on the qualification and expertise, three types of facilitators; Senior Business Analysts, Business Analysts and graduates. The bulk of the facilitation for requirements gathering and process modeling is done by the Business Analysts, who, at the case organization, undertook dedicated facilitation training. The role of the facilitator in this case setting is seen as one that *"actively engages the participants, keeps them focused and drives towards outcomes"*. He *"has to ensure acceptance for a solution and reach agreement with the participants"*. Proper planning precedes every workshop with a detailed assessment of the involved stakeholders and the occasional use of a 'preparation checklist'. However, for the actual conduct of the workshop there are no documented guidelines and it often comes down to experience. *"You definitely need more than one trick to be flexible"*. Every workshop has a firm objective and the facilitator plays the role of the 'devil's advocate' critically questioning ideas and solutions.

Facilitators who are involved in the gathering of requirements, we found, tended to act like artists more so than engineers. They *"are less fussed about being methodologically perfect and certainly jump around, if required"*. The actual process modeling facilitators, however, follow strictly their modeling notation (here BPMN) and a firm set of related methods. They *"can not move on, until they have ticked of a certain deliverable."* These facilitators are more engineers as they base their work on their methods. The artists among the facilitators rely on their personality and are *"more of relationship builders"*. Being assertive is seen as a key behavior of the facilitators. The act of facilitating is not delegated to participants; instead a more centralized approach is preferred. The junior facilitators work from a structured approach, while the experienced facilitators do not require the same amount of planning and structure. Domain expertise is required to the extent *"to be dangerous without getting yourself into trouble"*. The purpose of the workshop is seen as a key factor that determines the appropriate style of facilitation. We thus describe the facilitation facets generally preferred by this organization as both the driving engineer and the driving artist.

Case 3: The Utility Provider - At this case site, the Corporate Process Consultant is tasked with implementing a business process improvement framework into the organization of this energy company. The aim is to support BPM professionals to enable business process improvement initiatives by supporting them in training and with the evaluation of business process models. Two contractors (external facilitators) run the workshops. We learned that *"the role of the facilitator is to extract the information from the heads of people"*. The aim is to get an understanding of what people do and to support them in understanding what they do in terms of business processes. The facilitators use tools and methods, which mean that they do not have to use their own persona in order to proceed. They rather rely on the capability to *"to do the mechanics"*. This facet of facilitation, in our framework, can be conceptualized as a catalyzing engineer. However, we found other facets of facilitation to be important as well. *"Because we are an engineering organization everything is black and white. Employees are not catered to think outside the box"*. The catalyzing engineer needs to be the starting point (and thereby the most dominant facet of facilitation), but it is also necessary to balance and complement this with artist-oriented facilitators at certain points during the course of the workshop. The facilitation style in this organization is determined by the desired outcomes. *"If you have a specific outcome you need to take control and dominate so you get your outputs"*. *"The control style that the facilitator needs to adopt is dependent on the purpose of the workshop"*. It is also important that the facilitator embraces conflict, in order to get the best outcome of business process improvement initiatives.

Case 4: The Investment Company - The Enterprise Architect is in charge for process-related activities at this site. In order to fulfill this assignment, he has a team of architects as well as a team of analysts. In regard to developing facilitation abilities, these team members are trained during a company course that the Enterprise Architect himself runs. Especially for the business analysts, the aim with the course is to lift their skill level to engage with business stakeholders and, leveraging their own skills in process modeling together with the input from stakeholders, model business processes within the company: *"We have had kind of various success in getting to that point, but this is an evolutionary thing, and it has been one of the drivers for the last lot of training that I have done with the teams. "The role of the facilitator within the realm of process modeling is to introduce the participants into new ways of conceiving the business. It is also to give insights into business processes and modeling. "So it is in one degree leading people into business process modeling, but another part is to enabling and supporting them to feel confident is using these skills in the business."* Thus, the workshops are characterized by a mix of instructing and directing people into development of new ideas and skills, but also by the norm "*stepping back*" to give the participants the freedom to develop their own ability to use these skills within the workshop. The mix in the facilitation indicates that three of the identified facets (the catalyzing engineer, the driving engineer and the driving catalyst) are deemed necessary at various points in the workshop. Still, we found the catalyzing artist to be viewed as the essential facet

for the facilitator by this organization. *"If people do not relate to your personality, you will not be able to get through to them with your message. The way grown people learn is by getting their hands on it, and therefore the catalyst is needed more than the upfront instructor. Not to say that that role is needed in other situations during the workshop."*

At this case site, the general view was that the facilitation facet should be determined by the course of the workshop. Sometimes the facilitator must step back and let the participants be creative and self-going. In other situations, the facilitator may have to step forward to actively support and instruct the group. An important ability for a facilitator is hence to read the situation in order to be able to select appropriate facilitation style; for example when he/she should talk or when he/she should listen. A good facilitator does not exclude one alternative but instead chooses the appropriate one depending on the situation. We also found that facets might require different sets of individual skills, which are probably connected to an individual's personal trait.

Case 5: The Logistics Service Provider - At the logistics service provider, the Business Architect is responsible for formulating standards for how business processes should be modeled. The Business Architect also provides guidance how to facilitate process workshops, and is in charge with selecting the facilitator that should be assigned to different projects. In addition the Business Architect provides measures of how to evaluate the performance of the facilitators within the organization. A facilitator could at this case site be a person acting in the role of a business analyst, business improvement manager, support officer, and as a project manager. The organization has currently about 25 people in various activities that could act as a facilitator for a business process workshop. Training in facilitation is provided in courses, but is mostly regarded by the Business Architect as a skill that requires seniority. The business analysts work therefore in teams consisting of a senior business analyst and a junior business analyst. *"One facilitator cannot do both roles"* The junior analyst provides the ground work for the senior business analyst *"by being present in the workshop and by taking notes"* He or she makes sure that everything is being captured in the workshop. The junior analyst performs important tasks, but *"the senior business analyst is the key"*. It is he or she who interacts with the participants using skills in negotiations, interpersonal skills, and communication as well as listening skills, in order to elicit information, present it back to the audience, engage the audience, organize the workshop, select the participants, understand and know the stakeholders in the room, and even engage people prior to the workshop so as to ensure workshop success *"All participants should be stitched up and prepared, the workshop is not a talk fest, desired outcomes and the scope should be set prior to the workshop."* A facilitator therefore has to be highly prepared when he or she steps in the workshop room.

Workshops on a more strategic level are often assigned to external facilitators performing within the facet of the driving artist. On an operational level, facilitators from within the organization often lead the workshop *"so they* [the participants] *feel safe and not threaten[ed]"*. *"145 years of history with a command and control culture"* have created an engineer culture within the logistics service provider in which the driving engineer is viewed as the favorable facet amongst the four. This does not mean, according to the Business Architect, that this is the only facet, which would be required of a facilitator during a workshop on operational level. At times, the Business Architect herself often shifted facets during the workshop and was *"many things to people in the room, because this was required to reach the desired outcome"* He or she must be able to adjust the appearance and the styles used along the way, yet *"this [realization] comes with experiences."*

Case 6: The City Council - At a local city council, the BPM Advisor is both an Enterprise Architect and also secretary in the BPM council. In the role as Enterprise Architect, she heads a small team which consists of one business architect, one support officer and two business analysts. Together they perform workshops with participants from different functions in the organization. These stakeholders are process owners who are, in regard to their business process maturity, on the lower level side of the scale. Because the process owners are immature, the facilitation team led by the BPM Advisor was required to bring, in addition to *"generic facilitations skills"*, *"BPM expertise and experience into the workshops"* in order for the workshops to succeed. Another role that the team takes is to identify and point out dependencies to participants and process owners; e.g., to transfer knowledge how a change in one process might affect other processes in other parts of the organization.

The team brings into the workshops prepared models in order to accelerate the process modeling activities and the related conversation. This ex-ante modeling is done largely by the team itself as the process owners lack required BPM expertise. Aside from preparing models that are used during the workshops, the facilitators spend time before the workshop to secure that *"everyone is on-board prior to the workshop"*. During the workshop, the BPM Advisor aims towards decentralizing the work to the participants; however, because of the immaturity of the participants, the facilitators may not entirely transfer responsibility, but rather act as driving engineers, *"taking a little more*

responsibility that we ought to which is not a sustainable work approach in the long run". At current, the facilitators do a lot of talking yet still favor a situation in which they could step back more and actively listen during the workshops. They strive towards a flexible structure but follow a very deterministic, pre-prepared path during the workshops. The workshops are centralized to the BPM team but the ambition is to create a sustainable work model in which the control over the work as well as the modeling is decentralized to the participants. In this organization the driving engineer was favored as the main facet of facilitation because of the process modeling immaturity.

Cross-case Analysis

The insights from the interview empirically grounded the relevance of the proposed facets. When we cross-examined the interview data, we also identified contextual factors that potentially determine the selection of the most appropriate facilitator facet and styles, as per socio-organizational or environmental conditions present at the individual case sites. Based on our comparison of the emerging commonalities and the identification of case differences and underlying situational factors, we identified the following boundary conditions pertaining to the selection and implementation of different process modeling workshop facilitation styles:

- *Expertise and maturity of the facilitator (case 1, 5):* our data suggests that the more a facilitator is experienced, the more he/she will migrate towards the more flexible approach of an Artist rather than an Engineer and concentrate on building valuable relationships with the audience.
- *Availability of tools and techniques (case 2, 3):* the data propose that the existence of a fully populated facilitation and process modeling methodology is a pre-requisite for an Engineer. Facilitators in the early stages of process modeling adoption may gravitate towards the role of an Artist simply due to a lack of available methodologies, schemas or structured approaches to allow for an Engineer facilitation style.
- *Organizational culture (case 5):* the more an organizational audience is characterized by a control and command structure, the more a facilitator must him/herself use the skills of a Engineer in order for the workshop group to accept him/her as a source of power and leadership.
- *Course of the workshop (case 4):* the course of the workshop requires the facilitator to adapt; a catalyzing artist tends to have the best capabilities to recognize an evolving situation in the workshop and adapt his/hers style to manage it.
- *Process modeling maturity (case 6):* our data suggests that stakeholders and participants with low process modeling maturity tend to rely on a facilitator to drive and perform many of the work items associated with the workshop him/herself, which characterize the Engineer, and especially the driving engineer. In turn, a Catalysts' facilitation requires sufficient process modeling exposure by the participants to compensate for the lack of structure and guided action.
- *Purpose of the workshop (case 2, 3, 4, 5):* the more a workshop has to lead to tangible commercial outcomes (e.g., cost reduction along a process) and requires firm control, the more the facilitators will act as Drivers rather than Catalysts. The more a workshop has to lead to the simple, unambiguous and rather descriptive creation of as-is models (models of current organizational process) the more the facilitators will act as Catalysts rather than Drivers.

Structured Questionnaire Findings

After identifying the above boundary conditions, we decided to explore one of them, *the purpose of the workshop,* by administering a close-ended questionnaire. In the questionnaire we asked each of the six interviewees above ten sub-questions in relation to the characteristics of facilitators of **as-is business process-modeling workshops**. We consequently examined whether the purpose of the workshop – as-is modeling – affects which facet and hence which styles that are preferred during business process-modeling workshops. We found that the strongest consensus was achieved for the dichotomic style "involves vs ignores" (mean = 1.83), followed by "centralized vs decentralized modeling" (mean = 5.67) and "static vs flexible (mean = 5.00)". Further, the data for the first two styles was found to differ significantly from the mid-point of the scale (based on a one-sample t-test). The data further suggests that the answers for the style "assertive vs. emphatic" were scored exactly on the midpoint. The survey results, while limited in nature due to the small sample size, allow us to put forward some tentative speculations about which facets or styles are preferred when as-is models are being modeled in a workshop. These results further strengthen the proposition that *the purpose of the workshop* is an important boundary condition. For example, when asked what is preferred – a facilitator that (during as-is modeling) talks or listen we found a tendency towards the right end of the scale (*listening*). In regard to our proposed facets this finding points toward a preference

for the catalyst (precisely, both the catalyzing artist and the catalyzing engineer). This is also grounded by the interviews in which the majority of the interviewees explicitly state that a facilitator has to be able to read the situation and preferable step back during the workshop and let the participants involve themselves in the modeling. This *decentralizing* style seems to be favorable, as we found a significant tendency (mean = 5.67, p = 0.00) towards decentralized efforts by the facilitator when as-is models are being produced.

When it comes to modeling style, viz., whether the facilitator should do all the modeling him/herself or let the group model, we noted an interesting deviation in the answers. One of the participants indicated, in contrast to the others, that it is favorable that the facilitator does all of the modeling. When we investigated this answer more closely and compare it to the cross-case analysis, we found that this was the City Council in which the process modeling maturity currently is low. We suggest the low maturity as a probable explanation to the deviation in the answers, which also is visualized in the answers to the question regarding facilitation style and domain knowledge style. In this organization the facilitator must have domain expertise in order to be able to participate actively in the modeling workshops and he/she have to do most of the facilitation him/herself in order to keep the work on track. Overall, our follow-up analysis suggests that neither the *driving engineer* nor the *driving artist* is favorable based on the styles advocated during *as-is modeling*. Instead our data points towards the facets of the *catalyzing engineer* and the *catalyzing artist* as the preferred facets, which strengthens our proposition that the more a workshop aims toward producing as-is models the more the facilitator needs to act as a catalyst rather than a driver. Additional research must be carried out further strengthening these results and also to investigate if the driving engineer or the driving artist are favorable facets when to-be models (models of potential future organizational processes) are produced.

Discussion

The facilitation of process modeling workshops has been largely ignored as a potential unit of analysis by the academic community. Thus, the related body of specific knowledge in this area is rather limited. However, there are a number of related areas in the wider fields of facilitation, education and group support systems that provide theories and models of relevance for the research presented here. With our research presented in this paper, we make three contributions to theory.

First, contrary to the existing literature that reduces a facilitator to the role of a catalyzer, we have identified strong empirical evidence suggesting the co-existence of a second type of facilitator, i.e., the driver. This finding leads to an interpretation of the role of the facilitator as an agent on behalf of the corporate strategy and the objectives behind the process modeling initiative. This enhanced role means that the facilitator represents in fact multiple roles and as a 'driver' also acts as a consultant or teacher. Our findings show that organizations can be fully aware of this potential and do not always reduce the facilitator to an un-opinionated, mechanistic stakeholder.

Second, we have provided ten behavioral styles of facilitation that provide a much deeper understanding of the nuances of facilitation than previous research. All of the ten styles of facilitation were derived from the literature and our interviews largely confirmed completeness and appropriateness of this set of behavioral styles. As such, this becomes an important artifact derived from our research that could be used within future research.

Third, we were able to derive normative knowledge about the situational factors that describe when to utilize what facet of facilitation. The results from our exploratory examination show that the appropriateness of a facet correlates with the aim of the process modeling. Hence, the purpose of the workshop acts as a boundary condition determining which facet a facilitator ought to utilize. The results, however, also suggest that the boundary condition process modeling maturity (within the organization) also may affect the decision which facet a facilitator should apply. Hence, there are relationships between different boundary conditions. We consequently argue that the four facets, including styles, investigated together with the boundary conditions that the study identifies form a basis for a theory for process modeling facilitation, and ultimately, successful process modeling project management.

Conclusions

In this paper, a conceptual framework with four facets of facilitation is put forward, which can be used to describe, investigate and explain the behavior associated with process modeling workshop facilitation. We believe our explanatory model will be an important sensitizing vehicle in examining the ultimate outcomes from collaborative process modeling endeavors. To that end, we provide a deeper categorization by suggesting ten proposed dyadic styles of facilitation that describe, and differentiate, the four facets in more detail. This is an important initial

conceptualization of the success factor 'business process modeling facilitation', and can be used to identify different facilitation styles, and relate these styles to the ultimate success of process modeling projects.

We further examined how the facets derived from four stereotypes are adopted by process modeling workshop facilitators, and we further analyzed the data collected with the help of the identified ten dyadic styles in regard to the reported facilitator behavior during collaborative modeling conducted at the case organizations. We found that most facilitation efforts in as-is process modeling workshops can be described as catalysis – either perusing a catalyzing engineer or the catalyzing artist as the facilitator. We further uncovered tendencies towards specific behavioral styles that are associated with good facilitation - listening, flexibility, involvement and decentralization.

These findings need to be assessed in light of the following *limitations*. First, we relied largely on the interview data and relevance assessment of the 10 behavior styles as provided by our interview partners. Further triangulation with other sources (e.g., video recordings of workshops, training material, templates) did not take place. While further empirical evidence will increase the external validity of our outcomes, we are confident that the richness of the quality data collected already provides sufficient insights and provides an important cornerstone of an emerging substantive theory. Second, all interview were conducted in Australia. This regional focus is balanced by the fact that all interview partners were highly qualified and experienced professionals, often with international expertise. Third, we did not consider in full detail the specific context of each interview. We are, for example, aware that the interview partners work in different industries and for organizations of different size. At this stage of our research, however, we were interested in deriving a first, enhanced taxonomy of facilitation styles. A further investigation of context-specific factors will lead to even deeper insights. However, this will require a larger set of data.

In our ongoing research program, we plan to use a sequential mixed-method research strategy to collect data from more organizations in order to generalize our findings, as well as to derive a set of mandatory and optional requirements for successful facilitation. The mixed-method strategy will be complemented with a qualitative in-depth strand to further study the effects of requirements for good facilitation in use in natural modeling workshop settings. Ultimately, we see our research as leading to an emerging theory that evidences and explains not only workshop facilitation as just one success factor of process modeling, but moreover positions workshop facilitation in relation to other success factors of process modeling, such as top management support, modeling tool, and resource availability (Bandara et al. 2005). This theory, once fully mature and evidenced, will lead to more substantiated and detailed normative advise on creating the benefits typically associated with process modeling (Indulska et al. 2009).

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