



Using facilitative skills in project management

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USING FACILITATIVE SKILLS IN PROJECT MANAGEMENT

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Project management can be seen as a profession, discipline and conceptual framework. It has been developed from different fields, including military engineering, mechanical engineering, social sciences and construction. During recent decades, there has been a number of challenges as to its efficacy, for example disappointing project performance and lack of an appropriate project cooperation method due to new forms of cooperation possibilities. More and more organizations are engaged in contractual joint ventures, alliances and other forms of inter-organizational relationships. In addition, virtual cooperation, mediated by interconnected and diversified systems, is becoming more and more common. These relatively new forms of interaction imply new demands on skills and methods facilitating project cooperation within and among various organizations. Given the pervasiveness of these demands, project managers are frequently finding themselves in situations where using facilitating skills is not an option, but a requirement. Facilitation is to be viewed as a process of 'obstetric' aid to meet the challenges of coping with the changing conditions for project management described briefly above. The outcome of facilitation depends on at least four interrelated sets of conditions: a) The available time and resources in comparison to the complexity of the aim(s), b) the composition of the participants, c) the skills of the facilitator and d) the methods available to the facilitator. In this paper facilitating skills are identified and discussed in relation to the changing circumstances for project management. The approach used to achieve this paper's objective includes a literature review, model building and reflection on facilitation skills based on the author's experiences from facilitating workshops for company managers, public administrators, NGO's and university professors / students around the world. In addition, this paper is based on the author's many years of experience in supervising engineering students from for instance China, South Korea, Canada, US, Ghana and various European countries who have come to learn and practise facilitating skills as international students at Technical University of Denmark. The paper identifies facilitation skills at three different levels: the intellectual, emotional and synergistic level. An analysis is conducted based on a practical example of how engineering students are able to learn facilitative skills. The contributions of this paper to the field are an extension and a deepening of existing knowledge of facilitation skills at different levels. In addition, the paper includes a model regarding effective ways of combining various ways of knowing in a facilitation course for university students and future project managers.

Keywords: Project management, facilitative skills, reason, affiliation, resonance.

Introduction

Project management can be seen as a profession, discipline and conceptual framework. It has been developed from different fields, including military engineering, mechanical engineering, social sciences and construction. During recent decades, there has been a number of challenges as to its efficacy, for example disappointing project performance and lack of appropriate methods due to new forms of cooperation possibilities (Pullan and Murray-Webster, 2011; Rasmussen a, 2011; Winter et.al., 2006). More and more organizations are engaged in contractual joint ventures, alliances and other forms of inter-organizational relationships. In addition, virtual cooperation, mediated by interconnected and diversified systems, is becoming more and more common (Rasmussen, 2012; Spencer et.al., 2011; Castells, 2000). These relatively new forms of interaction imply new demands on skills and methods facilitating project cooperation within and among various organizations. Given the pervasiveness of these demands, project managers are frequently finding themselves in situations where using facilitating skills is not an option, but a requirement (Adams and Means, 2006).

The primary objective of facilitation is to support participants in transcending 'business-as-usual' conventions and help them think in terms of new modes of behavior and perspectives. Given the pervasiveness of these changes, the key question is how to prepare individuals and groups? Which kinds of capabilities should they acquire and how?

Using interactive methods and facilitation in project management

Project management is an approach for developing a desired outcome (product, service and/or organizational change) by balancing competing demands regarding quality, costs, time and scope related to the needs and expectations of the clients and /or users of the outcomes. The key challenge of project management is to keep the project aligned with the organizational strategy in order to deliver the desired outcomes. In order to be able to meet this challenge, the project manager must be skilled in establishing collaborative client relationships, plan appropriate project phases, guide the project group to achieve desired outcomes and sustain a participatory project environment (Rush, 2007, Hodgson and Zaiman, 2003). These key skills are similar to the skills demanded by a facilitator, and they can be executed by using interactive methods defined as methods that involve stakeholders actively in problem defining and problem solving activities. The general assumption of this paper is that the application of interactive methods like Future Workshop, Design Games, Scenario Analysis and Interactive Planning enable critical, creative and goal directed project management (Rasmussen b, 2011; Müllert, 2011; van der Heijden, 2004; Alexander and Maiden, 2004; Robinson, 2003; Schwartz, 1991). As they evolve over time, the use of interactive methods is like the use of 'mental laboratories', in which various ideas and development plans can be tested (Garibaldo, 2011). They can provide a common platform for trans-disciplinary collaboration integrating knowledge from several academic disciplines as well as practical experience from stakeholders in an organization, community or network (Müllert, 2011, Limborg and Hvenegaard, 2011; Mehra, 2011). A potential risk is to oversimplify complex issues in order to facilitate the communication and discussion of the key aspects. The use of interactive methods in project management gives the power to break old stereotypes and enforce their users to question their assumptions about how things are working. Another potential risk is, of course, that they may result in a less successful outcome or change due to the uncertainties of the dynamic and complex environments surrounding current organizations, communities or networks. Even if they have proved to be useful in change and innovation projects, they should not be considered as panaceas usable in all situations (Garibaldo, 2011; Zwaenepool, 2011; Hansen and Rasmussen, 2011). The proper use of interactive methods in project management is related to facilitative skills, including the ability to assess the level of problem complexities before it is decided if or how the interactive methods should be used at all. Therefore, an appropriate educational model to achieve these skills as well as an example of how a group of engineering students learned to facilitate project managers in a real-life context are presented and discussed in the next sections.

Four ways of knowing and learning facilitative skills

Systematic knowledge sharing and learning include experiential, presentational, propositional and practical forms of acquiring knowledge. These four ways of knowing can be defined as follows. *Experiential knowing* is achieved by being in direct face-to-face encounter with a person or group of persons. This kind of knowing is created through the immediacy of imagination and empathy. *Propositional knowing* is intellectual knowledge based on understanding through concepts and theories. *Presentational knowing* is the grasp of the significance of patterns expressed in graphic, plastic, moving or verbal communication. *Practical knowing* is knowledge of how to do something (Rasmussen and Garibaldo, 2011; Heron, 2000). These four ways of knowing are employed in everyday life, sometimes tacitly and sometimes explicitly (Nonaka and Takeuchi, 1995; Polanyi,1966) depending on our educational background and the task at hand. In general, it is assumed that our knowledge is more valid if the four ways of knowing are congruent with each other. This means that knowing is grounded in experience, expressed through images, figures and narratives and understood through theories that make sense and applied through practical activities. But the relationship can also move in the opposite direction: Skilled actions can lead to enriched experience, then to wider representations of imagination and ideas, and finally to more comprehensive concepts and theories that can help improve practical knowing (Rasmussen and Garibaldo, 2011; Heron, 2000). Learning of facilitative skills relies on the combination of these four ways of knowing, as demonstrated in the following model and example.

How engineering students learn facilitative skills

During the recent decade the authors have been responsible for planning and conducting a course for Danish and International engineering students at master class level where students learn how to facilitate processes by using interactive methods like future workshops, search conferences, design games, causal mapping, dialogues, scenario planning, interactive swot and interactive planning, and improvisational theatre as showed in figure 1 (each of these methods are briefly described in appendix). The overall objective of the course, named “Strategy and planning methods”, is to combine the four ways of knowing described above. This means that the students should be able to understand the management paradigm behind the concept of facilitation. They should also learn to communicate and adapt the methods to specific client contexts in real life. Third, they should learn to conduct a workshop as facilitators in a practical setting. Finally, they should be able to reflect on what they have accomplished by using interactive methods in a real life context. The course is divided into five phases:

Phase 1: Introduction of theory (propositional knowing). For instance, what are the essential characteristics of the two main management paradigms? Which different levels of problem complexity is it possible to distinguish between? Concepts and models about group dynamics, learning, ways of knowing, ethical aspects of facilitation, concepts of creativity and facilitation are introduced to the students, too. In addition, practical exercises of creative techniques like association and brainstorming (practical knowing) are conducted in this phase.

Phase 2: Presentation of interactive methods. As shown in figure 1, the interactive methods, presented in the course, partly overlap and partly complement each other regarding the four steps in the SECI model (Socialization, externalization, combination and internalization), describing different relationships between tacit and explicit knowledge production.

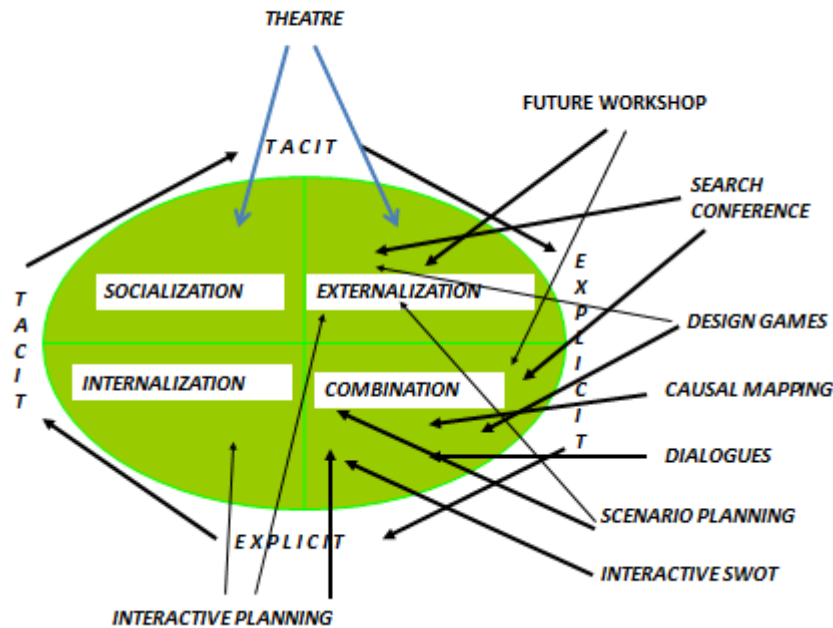


Figure 1: Interactive methods related to the tacit / explicit knowledge model (SECI, Nonaka and Takeuchi, 1995)

Each of the student groups (4-6 members) are asked to present one interactive method chosen from the textbook in the class room by using real or fictive examples (propositional and presentational knowing). After each presentation the method presented is thoroughly discussed in class, involving all the students and the teacher.

Phase 3: A practical exercise of a workshop is executed in the class room. A group of student-volunteers facilitates the rest of the class in an exercise applying two of the interactive methods presented in phase 2 (presentational and practical knowing).

Phase 4: The student groups agree with a client to facilitate a workshop regarding a problem statement suggested by the client. The students must find a client and negotiate with this client about how a workshop could be conducted in a practical setting in part of the client's organization (presentational, practical and experiential knowing).

Phase 5: The students describe, analyse and reflect on the facilitation process by using concepts and theories introduced in phase 1 (propositional, presentational and practical knowing).

Learning facilitation in practice: an example

The following example describes how a group of six international students learned facilitative skills during the fall of 2012. The six students come from very different cultures (Canada, Germany, France, Spain, South Korea and Pakistan). They have never been introduced to facilitation concepts before they attended the course described briefly above. By describing their learning process in detail, the intention is to exemplify how it is possible to combine the four ways of knowing in a

combined theoretical and practical educational approach, thus giving the students facilitative skills useful not only in relation to direct facilitation tasks, but also in a more general sense as members or managers of projects in their professional carriers later on.

After having passed phase 1,2 and 3 of the course briefly described above, the students started by contacting organizations that would be suitable and willing to participate in a workshop to solve a concrete problem within their organization. One of the organizations contacted responded positively to the opportunity, namely a large, multi-national corporation with several companies placed in Denmark (from now on named 'the client'). Though it is a multi-national corporation, the participants of the workshop were all Danish project managers, thus adding a further challenge to the facilitation, because the international students did not speak or understand the Danish language but nevertheless acknowledged that the participants spoke in Danish but wrote in English.

The preparation phase started with two introductory meetings between the students and a contact person from the client in order to fulfill the following tasks:

- Defining an overall topic for the workshop suggested by the client
- Fact finding about, and surrounding, the selected topic
- Discussion of and final agreement on the interactive methods to be used in the workshop suggested by the students based on their knowledge from the course
- Elaboration of a list of workshop participants to be invited suggested by the client and the students in common
- Assessment of suitable and available physical and technical facilities offered by the client and/or the students
- Planning of follow-up process after the workshop

During the first meeting, the contact person showed the students a process flow chart describing the area in which the client experienced a problem. The students received detailed information about the stakeholders' set-up, their roles and responsibilities as well as the current approximate time requirements for the different process steps. The students discovered that the client for some time ago carried out a 'Kaizen Workshop' with exactly the same topic. However, no proper action plan was identified in that workshop, and as a result the drafted solutions were never implemented. To avoid this from occurring again an emphasis on action plan and distinguished responsibilities according to the implementation were given high priority in the students' planning of the workshop. Based on these two preliminary meetings the client and the students agreed on the following problem statement for the planned workshop: *How to reduce the time in the molding tool approval/acquiring process*. During the meetings and associated interviews with other employees of the company a number of problems were identified by the students, such as communication gaps between the various departments, delay in documentation etc. Based on the problem statement and the knowledge acquired so far, the students began to discuss possible interactive methods appropriate for facilitating the planned workshop. During an iterative dialogue between the students, the client and the teacher the students discussed and reflected on benefits and weaknesses of all the ten interactive methods presented in the course. The final choice turned out to be *The Future Workshop* (Müllert, 2011) combined with some parts of *The Design Game Method* (Brandt, 2011), *The Interactive Planning Method* (Hansen and Rasmussen), and *The Interactive Scenario Analysis* (Rasmussen, 2011). The backbone of the workshop was based on "The three Diamonds Creative Problem solving Model" (Tassoul, 2011). This allowed the participants of the workshop to approach the problem statement with a systematic approach as illustrated in figure 2:

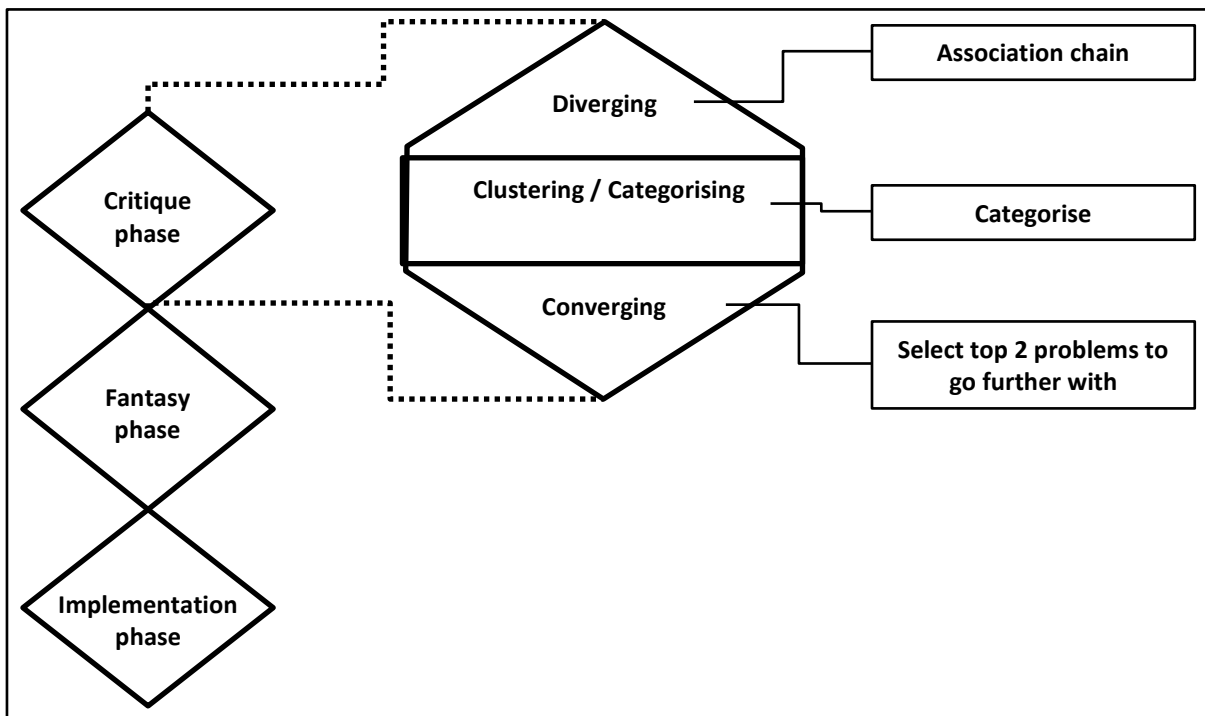


Figure 2: Structure of the workshop with particular emphasis on the Critique Phase for the sake of illustration (Ali et.al, 2012)

In the *Critique Phase* the participants are supposed to analyse the problem statement and share their reflections about the causes. The outcome of this phase should be presented in a number of problem statements with which the participants wish to go further in order to create ideas as to how to solve the problem. In the *Fantasy Phase* the participants are supposed to generate ideas on how to solve the problems they have identified in the former phase by using a similar process of diverging, clustering and converging, as illustrated in figure 2. In *The Implementation Phase* the participants are asked to generate necessary demands to implement solutions, categorize similar demands and design action plans to implement the solutions, again following the process of diverging, clustering and converging. The exact schedule of the planned workshop is presented in figure 3:

Figure 3: Time schedule of the workshop (Ali et.al., 2012)

<i>Time</i>	<i>Action</i>	<i>Notes</i>	<i>Resources</i>
8:00	Arrive at company		
8:00-8:15	Prepare for meeting with contact person		
8:15-8:30	Meet with contact person		
8:30-9:00	Organize workshop room and prepare for workshop		
9:00-9:05	Description of day, goals of workshop etc.		
9:05-9:20	Icebreaker 1	Fun Fact Game	-30 Cue Cards -Markers
9:20-10:50	Future Workshop Critique Phase: a) Introduction; b) split the participants into groups; c) brainstorming; d) clustering; e) select statements to continue with for the next phase		Slides, pens, sheets, post-it
10:50-11:00	Break		
11:00-11:10	Icebreaker 2	Animal Game	
11:10-12:00	Future Workshop Fantasy Phase (1): a) changing negative statements to positive ideas b) begin clustering of ideas		Slides, pens, sheets, post-it
12:00-1:00	Lunch		
1:00-1:50	Interactive Planning- End Planning (2): a) finish clustering of ideas b) select ideas to continue with in the next phase		Slides, pens, sheets, post-it
1:50-2:00	Break		
2:00-2:10	Icebreaker 3	Team Drawing	Slides, pens, sheets, post-it
2:10-4:00	Implementation a) presentation of the phase b) presentation of selected ideas c) split into sub groups d) each group put in common their demands e) discussion to agree on the most relevant demands f) each group prepares an action plan		Slides, pens, sheets, post-it
4:00-4:30	Presentations		Slides, pens, sheets, post-it
4:30-4:45	Debrief with contact person		

Facilitation of the workshop

The students followed the time schedule as described in figure 3. Throughout the workshop the participants came up with a lot of ideas to solve the problems. The most important ones were selected and developed for implementation through concrete action plans with clearly defined goals, milestones, needed resources, responsibilities, possible obstacles and how to overcome these obstacles as well as the expected outcomes. During a follow-up meeting with the contact person the students were told that the client has begun to implement the action plans. Upon hearing this, the students became excited to know that the workshop had produced ideas and action plans supporting the client's need to improve the effectiveness of collaboration between the departments involved.

The response from the participants

The participants responded very positively. They fully agreed that the students as facilitators were good at explaining the different phases. They also appreciated the so-called ice-breakers even though the contact person – before the workshop started- had been a bit sceptical as regards the use of ice-breakers, because he feared that the participants might experience the situation as a bit awkward or silly even. However, the students decided to keep them as planned, which they did successfully according to the evaluation of the participants. Examples of the participants' comments were:

“..good atmospherethe ice-breaking sessions went well.....we achieved two good action plans....ready for doing it again..... I did not see you as students” (Ali et.al., 2012, app. A 11)

All in all, the workshop turned out to be successful both from the participants' viewpoint, because they learned some new interactive methods and achieved “two good action plans”, and from the students' viewpoint because the students learned a number of facilitative skills as described above. These skills are not only valuable in guiding workshops, but also in participating in and managing projects in a more general sense.

Intellectual skills learned by preparing and facilitating the workshop

The core *intellectual skill* of facilitation is *reason*, meaning being able to formulate an understandable and clear conception of the purposes and procedures of the project phases. In relation to this core skill of reason the students reported to have learned:

- *Extensive preparation of process clarification, rules and role descriptions*

The students reported that one of the most important conditions for a successful workshop was the extensive preparation and planning that went into it. Methods were not just chosen accidentally, but as a result of an extensive and time consuming dialogue between the students, the client and the teacher. In addition, the students also learned to communicate agenda, roles and rules of the workshop to the participants

- *Problem formulation guidance*

The students learned how to guide rather than suggest formulation of problem statements. Though the overall problem statement was formulated by the client and the students before the workshop started, the students guided the participants to develop and reformulate sub-questions related to the overall problem statement during the workshop.

- *Initiation of creative processes*

The students learned how to prepare and conduct so called 'ice-breakers', that is, games with the purpose to promote the participants' creativity. The students also learned the basic rules of creativity as well as how to communicate these rules by explicit instructions and examples during the critique and fantasy phases of the workshop.

- *Enforcement of development possibilities*

The students learned to support the participants' awareness of which steps to take if the ideas and solutions produced are to be implemented in practice. In addition, they learned how to communicate and carefully explain why and how these steps are to be carried out.

- *Support of action planning*

The students learned how to guide action planning by asking critical questions about goals, milestones, needed resources, possible obstacles, how to overcome those obstacles, and finally expected outcomes. In addition, they learned that it is important to reserve requisite time for this particular purpose, because the client already had a negative experience with another workshop due to lack of time for detailed action planning.

- *Overcome of 'dead ends'*

Throughout the workshop the students learned to use various communication techniques such as for example echoing, paraphrasing, racking, encouraging, balancing, linking and logical marshaling (Rasmussen c, 2011, Kaner, 2007; Heron, 2000) to encourage the participants when 'dead-ends' were encountered.

Emotional skills learned by preparing and facilitating the workshop

Emotional skills include for instance being able to facilitate the processes of emotional relationships (trust, tensions, positive and negative feelings and attitudes) as well as empathy. The facilitative project manager must be able to handle negative and positive feelings among the team members. Sometimes, these feelings can be highly emotional such as fear, anger, tension, nervousness and even crying. It can be part of a healthy and creative process, release a lot of energy and thus contribute to reaching a higher level of creativity. However, it can also become destructive if emotions exceed the bounds of other participants. The facilitative project managers must also be alert to their own feelings. They must have a distress-free authority, which includes the ability not to transfer old hurt-laden agendas into current situations (Heron, 2000; Postle, 1991). They must also be able to draw the participants out of (self-) censorship by reducing the incidence of premature criticism. Sensitive project management depends on the core skill of *affiliation*, defined by Nussbaum as the capability to "...engage in various forms of social interaction; to be able to imagine the situation of another and to have compassion for that

situation” (Nussbaum, 2000:79). The skill of affiliation enables the facilitative project managers to create an informal and open-minded atmosphere in which the team members feel ‘safe’ to express their sometimes antagonistic feelings. However, the atmosphere should not only be *informal* but also *tense* in order to stimulate the participants to transcend conventional ‘borderlines’ and create new ideas and activities. At the *emotional level* the students reported to have learned:

- *To observe the emotional energy and body language of the participants*

“...It was striking how, at times, some very passionate moments or discussions occurred during the workshop. Even though the members have been working in the same organization for so long, and have different levels of interactions, a lot of ‘I did not realize this’ could be observed in people’s eyes” (Ali et.al., 2012: 35)

- *To cope with heated discussions*

When a dialogue seems to lose its focus and become chaotic to some participants, the facilitative project manager may fear that the process is coming out of control. However, what appears to be chaos can actually turn out to be a prelude to creativity. The difficulty is to judge which is which? How is it possible to recognize the difference between degenerative confusion and diversity-stretching-our-imagination? The trained facilitator would give ‘chaos’ a chance and wait to intervene as long as the participants are seriously engaged in the dialogue. Such a ‘groan zone’ of ‘confusion’ or ‘discomfort’ frequently occurs as a consequence of divergent thinking (figure 4).

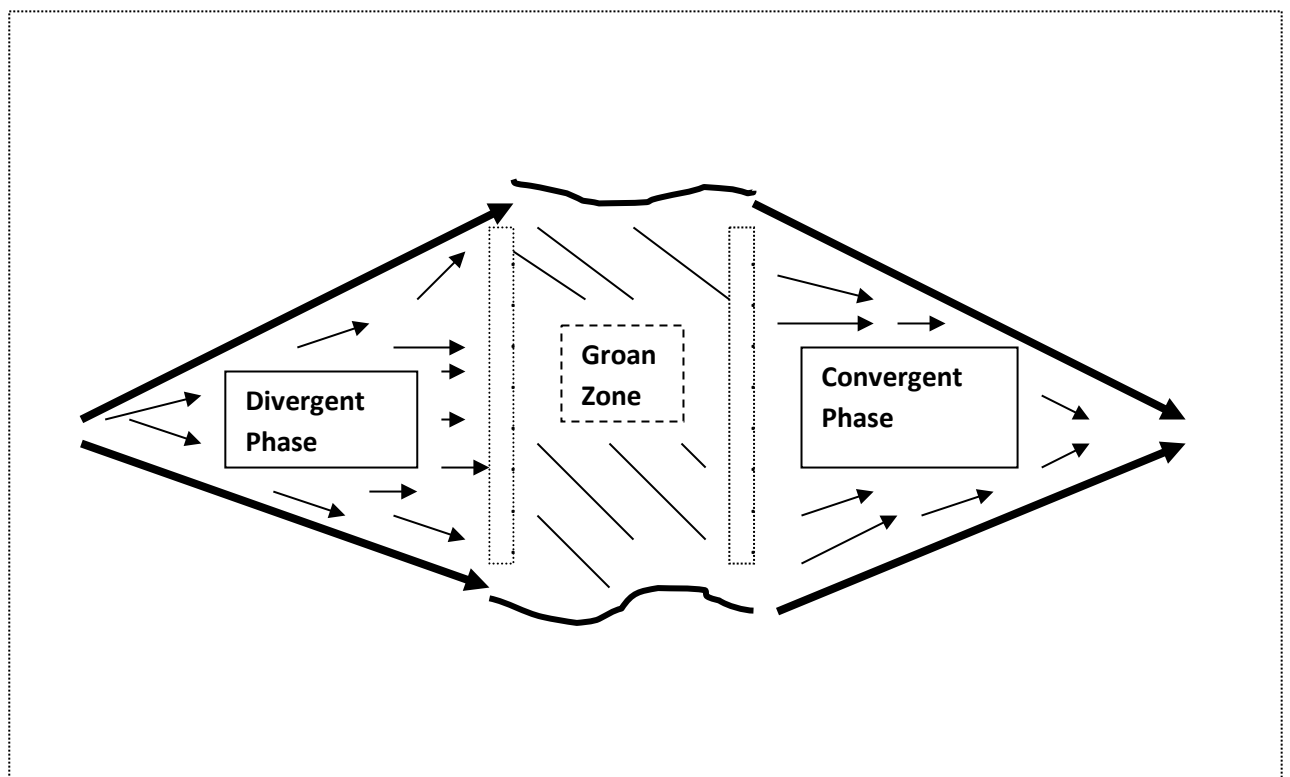


Figure 4: The 'groan zone' between divergent and convergent thinking
(Rasmussen c, 2011; Kaner, 2007)

If the facilitative project manager and the team members can cope with the stress of being in the 'groan zone' (figure 4), they are more likely to discover the essential points or ideas to be focused on in the convergent thinking phase. Regarding the skill of coping heated or chaotic situations the students reported:

"...Sometimes 'heated' discussions could be observed but the facilitators never felt an urging need to intervene as stakeholders were disciplined enough to constructively find their own way through arguments, given enough time" (Ali et.al., 2012: 35).

The students learned to be aware of the shifts in group dynamics, and they also learned when they should or not intervene in the process.

The synergistic skills learned by facilitating the workshop

The term synergy comes from the Greek word "synergos" meaning "cooperative action". In order to create synergy in the project teamwork, the project manager should be able to create *collective resonance*, defined as a cooperative action of discrete agencies such that the total effect is greater than the sum of the effects taken independently (Webster, 1996). For instance, in the natural world when two waves rhythmically entrain, they integrate as one wave creating an amplified effect. Similarly, when collective resonance occurs in project teamwork, the team members can tap into the underlying creative energy of the process of which they are all a part. The ability to create synergy depends on how well the skills of reason and affiliation are merging in the facilitation process. The resonant project manager is characterized by not only having highly developed skills of reason and affiliation but also the ability to bridge the intellectual and emotional skills precisely aligned, attuned and adapted to the current situation and stage of the project work (Pennington, 2011; Rasmussen c, 2011). Such resonance skills make it easier to improve listening, to trigger new ideas, intensify further dialogue and anchor the foundation for trust-building, often accompanied by laughter, inspiration, knowledge sharing, less and less judgmental attitudes, and creative improvisations. It is a sense of being united, a complete immersion that blurs the boundaries between the participants. This emotion motivates the participants to go beyond their own self-perceptions and connect to a collaborative community. Once the creative process is 'in flow', the moment arises when the project manager must stand aside and allow the process to establish its own momentum. The skills of creating collective resonance include listening to the speed, pitch and tone of the participants' speech or to the length of their laughter or silences (St. Anne, 1999). These skills can also be noticing facial expressions or body language and sensing changes in energy levels in the group. If the facilitative project managers are able to synthesize and interpret the different signals from the team members correctly, they will also be able to react to these signals and guide the process. There is often no time to 'step aside' and discuss the situation explicitly with other facilitators. They have to trust their knowledge of how to bridge reason and affiliation in the current situation and act accordingly (Rasmussen, 2002; Polanyi, 1966). At the same time, the facilitative project manager must be ready to intervene in the process in order to resolve disagreements or help eliminate negative emotions, which the process may also produce. Project managers who operate only at the intellectual level, using for instance the available methods prescribed in the textbooks, risk failing to reach the resonance of synergy. The facilitative project manager's

capabilities enable the team members to be open to the different aspects of creative cooperation and possibly enter new ways of relating with one another. The facilitation process is most successful when it activates the synergistic power of resonance and brings about the fusion of ideas that can lead to extraordinary outcomes and enable the group to set and pursue its own development goal with a deep feeling of confidence and 'flow'. However, even the most experienced facilitative project manager may not be able to 'push' a group towards creative collaboration if it is wrongly composed.

Regarding synergy the students observed the following process during the workshop:

"... The group synergy was evolving throughout the day....The ice-breaking games seem to bring them suddenly to a higher level of synergy....On the one hand, it can be argued that the critique phase suffered from a less synergetic group as it was at the beginning of the workshop, On the other hand, both the fantasy and the implementation phase benefited from higher levels of synergy created during the critique phase" (Ali et.al., 2012:36).

The students realized how the different phases of the workshop are interrelated so that the synergy evolved gradually as a result of the increasing level of resonance created by using interactive methods.

Summing up, the core skill of creating synergy in teamwork is the ability to create collective resonance based on the bridging of reason and affiliation by using interactive methods.

Facilitator skills versus project manager skills

The project manager is supposed to manage both content and process of the project, while the facilitator is supposed to be content-neutral and guide the process. Therefore, the role of project managers includes more than facilitator tasks and skills. However, facilitative skills comprising the ability to use interactive methods can aid the transition to a new way of conducting projects. They can make easier a successful implementation of change by integrating the interactive aspects of propositional, presentational, experiential and practical knowing in a trans-disciplinary approach. When such an approach is fully embedded in the organization, it can remain an effective process for facing ongoing challenges imposed by changing needs of stakeholders (Pennington, 2011; Winter, 2006).

The intellectual, emotional and synergistic skills, which the students learned in the example described in the former section, are all highly relevant for executing an interactive project management. They enable the students, as coming project managers or project members, to develop a collaborative client relationship to ensure that the outcomes are what the clients want. In addition, they also enable the future project managers to plan and guide a well-structured project consisting of critical, creative and goal-directed processes. Furthermore, they learn to be aware of emotional aspects including how to manage tensions while ensuring that all participants have opportunities to contribute the outcomes. Finally, they learn how to create synergy during the various project phases.

Conclusions and perspectives

An intrinsic part of project management is to create collaborative client relationships and plan and sustain a motivating environment. The use of facilitative skills, methods and techniques can

help to promote building active participation, critical dialogues, synergetic creativity and goal-directed implementation of the suggested improvements.

As described in the example, the students learned facilitative skills not only by reading a textbook, listening to lectures and doing exercises in the classroom. They also learned to practise facilitation in a real-life context. Finally, they learned how this real-life workshop can be analysed and reflected by using appropriate theory. In other words, they learned to combined the propositional, presentational, experiential and practical knowing in various combinations throughout the course. The interactive methods used in the course have proved to be successfully applied in companies of various sizes, public institutions, employer organizations, trade unions, virtual networks and non-governmental organizations.

The core capabilities of a facilitator are centred around an intellectual and emotional awareness of the flow of the processes as well as knowledge and practical experience in using interactive methods. What are the perspectives of using facilitative skills in project management? *First*, it may release a collective power to increase the combined visionary and productive abilities of the group. The authors have sometimes been amazed to see how much creative and productive power the facilitative use of interactive methods can impose on a group. It does not always happen, of course, but if it does, it 'lifts' the energy level of the whole group by enabling the coordinating and creative activities to flourish across disciplines and departments. Using facilitative skills in project management prepares the organizations for meeting the increasing challenges posed by the even more complex and dynamic conditions that characterize World at the current stage and perhaps even more in the future.

Appendix

The interactive methods, which are mentioned in figure 1 and referred to in the example describing how a group of students facilitate a group of project managers, are briefly described below, and more extensively in the textbook: Lauge Baungaard Rasmussen (ed.) 2011, *Facilitating Change – Using Interactive methods in organizations, communities and networks*.

Interactive Planning (Zaza Nadja Lee Hansen and Lauge Baungaard Rasmussen). Interactive planning (IP) is a framework usable to achieve agreements in complex social systems, in which individuals have various opinions and experiences. It can be divided into the following steps: A) Formulating the mess, in which the relevant problems and challenges are identified and a reference scenario is elaborated. B) End Planning, in which the idealized design of a desirable future is made. C) Means planning, in which the means to diminish the gap between the idealized design and the reference scenario are identified. D) Resource planning, in which the necessary resources to move from the present situation to the idealized scenario are decided. E) Implementation of the plans to realize the idealized scenario. F) Control, in which it is ensured that the organization is moving in the desired direction. IP has been used to deal with topics like policy and strategy development in local communities, corporations and governmental as well as non-governmental organizations in order to promote organizational change, urban or rural planning related to environmental and social issues. IP is developed on the fundamental belief that it is possible to achieve agreements even when the participants have different norms and interests.

Design Games (Eva Brandt). Exploratory Design Games (EDG) belongs to a field of participatory design, where the direct involvement of users (the people who are supposed to use the design) is essential. In a playful way EDG set an agenda for collaborative inquiry and assist the players in creating for instance new services, material products or common visions for possible futures. The scope of this chapter is to describe four board game formats in order to identify issues that one should be aware of when using EDG for various purposes: A) The User Game creates stories about people as prospective users. B) In the landscape Game the focus shifts from developing stories about a person to his or her interests and relations to involving the

physical and social surroundings. C) In the Technology Game the aim is to develop technology or projects where technology plays an important role in the activities and environment for the intended design. D) In the Enacted Scenario game the intention is to develop designs in which persons, surroundings and technologies from the previous games are placed in a condensed scenario. EDG have been used in companies to support product development, IT-implementation and improvement of organizational collaboration between people with various experiences. They have also been applied in architectural and urban planning approaches in order to gain new insights and develop a common strategy for the future. EDG are powerful, because they help to create an informal and playful atmosphere, which can be very productive in creative work.

Future Workshop (Norbert R. Müllert). The aim of Future Workshop (FW) is to help the participants explore new ideas and new ways of forming their future. In general, FW can be divided into the following steps: A preparatory phase, in which the topic is decided on and the practical arrangements are agreed upon. A critique phase, during which all the grievances and negative experiences related to the chosen topic are brought out into the open forum. A fantasy phase in which the participants come up with their ideas, fantasies and changing views in response to the problems. An implementation phase, where the participants critically assess the possibilities of getting their ideas and projects implemented. FW has been used in various settings such as research and education institutions, non-governmental organisations, companies, trade unions and public administration. It represents a form which offers the participants the possibility of drawing up a future, which is desirable and possible for them to implement, by thinking the 'impossible'.

Search Conference (Francesco Garibaldi). Search conferences (SC) help participants with divergent interests to generate new perspectives, new options and new capabilities in order to overcome difficulties of cooperation among members of an organization or group. They consist of the following steps. A) Problem setting and trust building, in which the goals and questions are negotiated and agreed upon. In addition, the steering committee is formed, and the practical arrangements are made. B) The diagnosis, in which a shared understanding of the situation is achieved. C) The deliberation, where a shared concept of change is developed. D) Follow-up, in which the outcomes are implemented. The method has been used to facilitate the development of a common cultural and social identity, thus improving the level of collaboration and knowledge sharing in enterprises, governmental institutions and non-governmental organizations and networks. The knowledge generation facilitated by the use of SC occurs at least in two ways: directly as a collective memory and indirectly through the written report, the assembly discussion and the communication with the organizers of the specific approach.

Interactive SWOT Methodology (Luc V. Zwaenepoel). SWOT means the analysis of Strengths, Weaknesses, Opportunities and Threats of an organization. The aim is to identify the internal and external factors that may affect desired future outcomes. There are two main parts of the SWOT process. A) The SWOT Inventory serves to give the participants an overview of the problem situation by using an inventory matrix to point out the internal strengths and weaknesses as well as the external opportunities and threats. B) The SWOT Analysis build upon the results from the SWOT inventory session in order to find strategies which make use of identified strengths and opportunities to combat weaknesses and threats. The method has been applied for strategy development in the military, governmental agencies, project planning in small and medium sized enterprises, regional planning and organizational development. As a participatory strategy and planning approach SWOT is usable to help the organization focus on specific areas and make priority among possible actions which can be formalized in a Strategic Vision paper.

Community Building through Dialogues (Kavita Mehra). Dialogue is the key-feature that distinguishes participatory approaches from other development and change approaches. By opening up the communicative space and bringing stakeholders of an issue together, it is possible to increase knowledge building and social change in organizations and communities. A dialogue conference consists of the following sessions. A) Common problem formulation and creation of homogeneous groups. B) Analyses of the causes of the different problems. C) Discussion of how to solve the problems based on the priority given. D) Discussion of an agreement on how to work with the development tasks in practice after the conference. E) Focus on how the continuous improvements and competence development can be achieved. Dialogue workshops have been

applied in companies as well as in local communities. The present chapter is based on the same premise and elaborates the concept through a case of empowering the farming community through dialogue methodology of the participatory action research. The practitioners of cut flower cultivation and marketing of the produce were mobilized in order to bring about the institutional change required for the sustenance of the technological change brought about that they had themselves brought about.

Interactive Scenario Analysis (Lauge Baungaard Rasmussen). Scenarios are pictures of possible futures. Interactive Scenario analysis (ISA) is a method for creating scenarios, which should be able to help stakeholders navigate towards desirable futures. ISA consists of the following phases. A) The constitutive phase, in which the focal issue is defined and the practical arrangements are planned. B) The problem-focusing phase, in which the focal issue is divided and specified into several sub-issues. C) The scenario building phase, in which scenarios are developed. D) The back-casting phase, in which several connections and paths are made between the scenarios and the current situation. E) The action-planning phase, in which strategies and action plans to achieve the scenarios are developed. The method has been used in various settings such as strategy development in the military, large business corporations, national planning, regional planning design and innovation projects and organizational and technological development. In its participatory form it is a powerful tool to challenge conventional assumptions about future possibilities and remove obstacles of creative imaginations.

Causal Mapping (Mette Sanne Hansen and Lauge Baungaard Rasmussen). Causal mapping (CM) is a method usable to map and analyze how a person thinks and relates to different issues. CM can be used to structure information, experiences, opinions and viewpoints for participatory problem solving. It consists of the following steps. A) Planning meeting where an initial view of the situation is achieved and the possible outcomes are identified. B) Interviews of the key-persons in order to achieve their viewpoints and opinions of the situation. C) Development of individual maps based on the interviews. D) Check-back interviews to receive the interviewees' response to the provisional maps. E) Merging the individual maps into a common map, including all key-persons' map. E) Presentation and interpretation of the common map together with the key-persons. F) Action planning and implementation, where targets are allocated to the relevant actors for implementation. CM has been used for different purposes such as strategy development in small companies or non-governmental organizations, sense-making processes in small groups, implementation of IT-solutions and change of organizations.

Improvisational theatre (Henry Larsen). Improvisational theatre is a powerful way of working with processes of organisational change. Brief plays enacted by professional actors can serve as invitations to mutual improvisation with participants from client organisations; as many as several hundred people can take part. Improvisational theatre is influenced by forum theatre, but takes another route in interpreting the dynamics of change. Organisations are constantly recreated through local interactions among people, where power relations, seen as dependency, are inevitable. The processes of relating involve responding to each other in recognisable and yet surprising ways; that is, with spontaneity. Improvisational theatre serves as an invitation to spontaneity, enabling risk-taking in interactions and awareness of changes in each other's reaction, because the apparently fictitious nature of the work makes it seem safe to do so. However, since the participants' contribution to this mutual improvisation is based on their reality, the work becomes kind of 'fictitious reality, from which new insights can emerge, that have the potential to change the configuration of relations between people. The reflections are based on the author's work in a Danish consultancy called the Dacapo Theatre; here, a particular relation to one client is explored as a process of learning.

The Chronicle Workshop (Hans Jørgen Limborg and Hans Hvenegaard). The Chronicle workshop (CW) is a methodology developed to maintain and document the important features of a specific period of time in a specific organisation. The focus is on the important events which shaped the changes, development and persons who brought it along and gave it flesh and body. The focus is also on the dilemmas, the conflicts and the breakthroughs that later proved to explain why and how history was created. CW consists of the following phases. A) The preparation of the workshop, including agreement on purpose, selection of participants and the writing of a programme. B) The conducting of the workshop, including the participatory

process of telling about important events, important people and significant issues during a specific period of time. C) Forming the future by reflecting the past events, people and issues. D) Discussion and agreement on issues that should be omitted or promoted in the future. It has been used to enhance organizational processes of change in companies and public institutions. CW makes it possible for the members of an organization to get a coherent story of an organization instead of the usual, fragmented, everyday anecdotes. In this way, they may be able jointly to reflect on the background of the prevailing norms and values of the organization and discuss possible changes for the future.

The Dominance of Dialogical Interview Research (Steiner Kvale). The dialogical interview has during the past decades become a sensitive and powerful method for investigating a number of issues. The author discusses the possibility that this form of interview may also entail soft forms of power relations. As a contrast to a neglect of power relationships, the author depicts various forms of agonistic interviews, which deliberately play on power differences. He then address societal contexts of interviewing and draw in the use of dialogues by the exercise of power in politics, management and education. Finally, he discusses interviews in relation to seductive forms of manipulation.

References

Adams, T and Means, J (2006). Accelerating the project Lifecycle: The partnership of facilitation and Project Management. *Annual San Diego- Pfeiffer and Company*, 2, 227-240

Alexander, IF and Maiden, N (eds.) (2004). *Scenarios, Stories, Use Cases – Through the System Development Life Style*. Chichester: John Wileys & Sons, Ltd.

Ali, S, Alvarez, A, Caille, A, Lott, C, Maier, L and Park HJ (2012). *Strategy and planning methods, Future Workshop*. DTU Management Engineering, DK. Unpublished report

Brandt, E (2011), Participation through Explorative Design Games. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 213-256. Lyngby, DK: Polyteknisk Forlag.

Castells, M (2000). *The Information Age: Economy, Society and Culture. Vol. I: The Rise of the Network Society” (2nd edition)*. Oxford, UK: Blackwell Publishers.

Garibaldo, F (2011). Search Conference. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 187-212. Lyngby, DK: Polyteknisk Forlag.

Hansen, MS and Rasmussen, LB (2011). Causal Mapping. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 257-284. Lyngby, DK: Polyteknisk Forlag.

Heijden, K v.d. (2004/ 1996). *Scenarios: The Art and Practice of the Learning Organization*. Chichester,UK : Wiley.

Heron, J (2000). *The complete Facilitators Handbook*. London: Kogan page limited.

Hodgson, V and Zaaiman J (2003). Facilitative project Management: Constructing a Model for integrated Change Implementation by utilizing case studies. *South African Journal of Human Resource management*, 1(3), 45-53

Kaner, S (2007). *Facilitator’s Guide to Participatory Decision-making*. New York: Wiley.

Limborg, H-J and Hvenegaard, H (2011). The Chronicle Workshop. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 305-326. Lyngby, DK: Polyteknisk Forlag.

Mehra, K (2011) Community building through Dialogues. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 285-304. Lyngby, DK: Polyteknisk Forlag.

Müllert, NR (2011). Future Workshop. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 73-98. Lyngby, DK: Polyteknisk Forlag.

Nonaka, I and Takeuchi, H (1995). *The knowledge-creating company*. New York: Oxford University Press

Nussbaum, MC (2000). *Women and Human Development –The Capabilities Approach*. Cambridge, US: Cambridge University Press.

Pennington, DD (2011). Bridging the Disciplinary Divide: Co-Creating Research Ideas in eScience Teams. *Computer Supported Cooperative Work* , 20(3), 165-196

Polanyi, M (1966). *The Tacit Dimension*. London: Routledge & Paul Kegan.

Postle, D (1991). *Emotional Competence*. London: Wentworth Institute,

Pullan, P and Murray-Webster, R (2011). *A short guide to Facilitating Risk management*. Surrey, UK: Gower

Rasmussen, LB (2002). Work process knowledge and creativity in industrial design. In *Work Process Knowledge*. N Boreham, R Samurcay, and M Fischer (eds.) pp. 74-94. London: Routledge.

Rasmussen, LB a. (2011). Framing Interactive methods, In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 11-46. Lyngby, DK: Polyteknisk Forlag.

Rasmussen, LB b. (2011). Interactive Scenario Analysis, In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 99-140. Lyngby, DK: Polyteknisk Forlag.

Rasmussen, LB c (2011). The Art of Facilitation. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 397-424. Lyngby, DK: Polyteknisk Forlag.

Rasmussen, LB (2012). Virtual teamwork – Panoptic or interactive work design. In *Prethinking Work: Insights on the Future of Work*, S Jeschke, F Hees, A Richert, and S Trentow (eds.). Wien: LIT Verlag

Rasmussen, LB and Garibaldo, F (2011). Application of interactive Methods – Epistemology and Ethics. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 47-72. Lyngby, DK: Polyteknisk Forlag.

Robinson, J (2003). Future Subjunctive: Back-casting as social learning. *Futures*, 35(8), 839-843

Rush, G (2007). The *FoCuSeD™* Facilitator Guide. Chicago, IL: MGR Consulting.

Schwartz, P (1991). *The Art of the long View*. New York: Doubleday.

Spencer, D, Zimmerman, A, and Abramson D (2011). Special Theme: Project Management in E-Science: Challenges and Opportunities. *Computer Supported Cooperative Work*, 20(3), 155-163

St. Anne, S (1999). A journey in search of facilitative communication. In White, S.A. (ed.): (1999). *The Art of Facilitating Participation*. pp.71-89. New Delhi: Sage Publications.

Tassoul, M (2011). Creative process. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 373-394. Lyngby, DK: Polyteknisk Forlag.

Webster's New Encyclopedic Dictionary (1996). Cologne: Könemann.

Winter, M , Smith, C, Cooke-Davies, T and Cicmil, S (2006). The importance of 'process' in Rethinking project Management: The story of a UK Government-funded research network. *International Journal of Project Management* 24(8), 650-662

Zwaenepool, LV (2011). Interactive SWOT methodology. In *Facilitating Change – Using interactive methods in Organizations, Communities and networks*, LB Rasmussen (ed.), pp. 169-186. Lyngby, DK: Polyteknisk Forlag.