René Victor Valqui Vidal¹

Received February 7, 2004; accepted July 17, 2004

This paper presents the principles behind the design and management of the Vision Conference: a one-day workshop in which a large group of participants meet to create ideas, projects, and visions for the future activities of a local community or an organization. A case study from a local community in Denmark is also presented to illustrate the organization, planning, and management of a Vision Conference. The paper focuses on the three central social processes of the conference: group work, problem solving, and facilitation. The paper ends with a discussion of creativity and creativity techniques suitable for Vision Conferences.

KEY WORDS: Vision Conference; group work; facilitation; creativity.

1. INTRODUCTION

"Dreams, not desperation make communities survive." This slogan was written on a wall of a shantytown in the outskirts of Lima, a community that has developed from nothing to become a well-functioning town. Visions, collaboration, and hard work have been the factors that have transformed a desert into a well-developed town. To create dreams about the future is an important task for many groups of individuals and organizations in grass root activities, public institutions, and small businesses. To create visions is the ability to think about the future with great imagination and wisdom.

The main purpose of this paper is to present the principles of the Vision Conference: a one-day workshop designed for a large group of participants with the purpose of creating visions for the future about a specific theme. The design, planning, and management of a Vision Conference are discussed in Section 2.

In Section 3, the various ideas and concepts discussed in the previous section are illustrated by presenting a real-life case study: a Vision Conference organized by a development centre in a vulnerable region in Denmark. This was a one-day

¹Informatics and Mathematical Modelling, Technical University of Denmark, B. 305, 2800 Lyngby, Denmark; e-mail: vvv@imm.dtu.dk.

conference designed for 30 individuals, and the author of this paper was the main facilitator assisted by three other facilitators.

During a Vision Conference, several social processes occur: first, the problemsolving process where the group work is focused on the specified task or purpose of the conference; and second, the group work process that includes the dynamic relationships between the different participants that might enhance or restrain the first process. In addition to these two processes we have the facilitation process, which is the process of managing the other two processes; the facilitators are the managers of this process. To facilitate is to make an action or a process easy or easier. These social processes will be discussed in more detail in Section 4.

Another task of the facilitators is the design of the Vision Conference. This work starts before the conference day, tackling different design and planning tasks. After the conference, the facilitators have to report back and evaluate the whole experience. In Section 5 we discuss the design aspects of the Vision Conference.

The Vision Conference is about the release of creativity to produce visions and ideas, and therefore, in Section 6 some aspects of creative problem solving are discussed. In Section 7 some creativity tools are introduced. Finally, the last section presents the conclusions.

The format of the Vision Conference has been constructed, based on some concepts and experiences from three areas: The organization of Future Workshops (Jungk and Müller, 1987), group facilitation (Heron, 1999), and creative problem solving (Courger, 1995).

2. THE VISION CONFERENCE

Vision Conferences can be conducted for a wide range of purposes. A typical purpose is to help organizations and group of individuals to create visions about the future. These visions will then be used as input to the process of strategy development. Similarly, a Vision Conference can be suitable for involving diverse groups affected by imminent developments in the larger systems, which include many actors such as industries, regions, and communities. We have used the concept of a Vision Conference to support grass root innovators and organizations in relation to the task of creation of new ideas for community work. The Vision Conference ideally brings together 30–60 people representing all relevant actors. The participants must adequately and accurately reflect the groups' range of interests, but participation must be voluntary.

2.1. Purpose

The purpose of the Vision Conference is not only to create ideas and visions about the future but also to create ideas and visions that are suitable as a basis for the process of strategy development to be carried out by the organization in question.

The Vision Conference is both a learning and a creative experience characterized by the following.

- The organization learns about the different actors' ideas, wishes, and visions.
- The different actors communicate to each other their visions.
- The participants learn to work creatively, collectively, and purposefully in a large group.
- The participants learn how to design and manage Vision Conferences.

2.2. Design and Planning

Achieving such learning outcomes depends very much on how the Vision Conference is designed and managed. Two critical dimensions of Vision Conference design are the definition of the conference *task* and the social *organization and management* of the group. Initial definition of the task and the stages toward its completion is the responsibility of the facilitators (design managers) of the Vision Conference. In consultation with the organization responsible for the Vision Conference and through some prior research into the relevant issues, facilitators should

- Develop a tentative definition of purpose that will be meaningful to participants; and
- Suggest a program that provides both adequate direction and sufficient scope for the participants to assume control and responsibility as the conference progresses.

With their experience and knowledge, the facilitators can remain alert to possible drifts into maladaptive directions during the stages toward task completion. However, they do not claim such expertise that would make participants subordinate and passively dependent upon them. The primary purpose is to create a room and opportunities for the participants to be creative, producing their visions for the future. This is possible only if both the information and the ideas come from all the participants and if the group work is organized so that progress toward task completion is accepted as the participants' as well as the facilitators' responsibility.

2.3. The Conference

The conference task and program usually take the form of some themes that the participants accept responsibility for answering in collaboration with each other, while going through a creative process. The participants will usually be divided in subgroups, each subgroup being of 7–12 persons and having a facilitator. These subgroups will be facilitated to create ideas, visions, and objectives for the above-mentioned themes. Some creativity techniques will be used to support the creative process in each subgroup.

The Vision Conference is usually of one-working-day duration. In the morning, work in subgroups will be combined with plenary sessions, with the purpose of producing as many ideas, projects, visions, and objectives as possible. This is called *the divergent phase* of the conference. In the afternoon, the same combination of work in subgroups and plenary session will be carried out, but now the work will be focused on the most promising ideas, those selected by each subgroup. This is called *the convergent phase* of the conference. Sometimes, it could be a good idea to redesign the subgroups in the afternoon; this might be a crucial decision and should be discussed by all the participants and the facilitators.

It is not unusual to start the whole conference with an invited speaker to give the first kick-off and some inspiration to all the participants. This person should be selected, based on his or her experiences with the theme of the conference and the ability to communicate his or her knowledge to a large audience. It is a good idea to end the conference with a short presentation by one of the facilitators to summarize the results achieved and with a final talk given by one of the representatives of the organization organizing the Vision Conference to outline what is going to happen in the near future.

2.4. Outcomes

After the conference ends, the facilitators prepare a report that is sent to all participants and to the board of the organization in question. This report contains

- The complete ideas, projects, visions, and objectives produced by each subgroup in both the divergent and convergent phases of the conference; and
- An evaluation of the different processes and activities carried out at the conference (the learning process and group dynamics).

It is expected that the board of the organization in question will use the reported information as input to the process of developing strategies and actions plans for their future activities. It often happens that the participants constitute a network capable in its own right of taking further initiatives and organizing other vision conferences with other organizations (learning and empowerment).

The overall purpose of the conference and the proposed stages toward its completion should be presented to participants at the outset. The Vision Conference is a task-oriented event. Unless participants can see at each stage in the context of making progress with meaningful tasks, they are likely to become confused, uncomfortable, and impatient with the broad scope and freedom provided. Also, this is an opportunity to test with the participants the relevance and validity of the proposed conference design. The invitation and introduction to the conference should emphasize the need for participants to accept "ownership" of and responsibility for the conference proceedings and outcomes.

3. A CASE STUDY

The Development Centre in Odsherred, North West Sealand, Denmark, (DCO for short) is an autonomous nonprofit organization established in March 1998. The main objectives of DCO are to strengthen, develop, and inspire all types of cultural, social, environmental, and commercial activities in the vulnerable region of Odsherred and to create co-operation with similar activities in other similar regions both in Denmark and Europe. Since its establishment DCO has focused on cultural, IT, and environmental projects and activities such as visual arts, Internet communication, dramatized cultural communication, sustainable building and design, etc. Local innovators in close co-operation carry out projects with the relevant actors of the region. This centre is financed through a mix of financing sources: public funds, private funds, sponsors, and business activities. DCO is steered by a board having a wide register of activities within development work, job creation, education, production, sales, marketing, and communication. In 1999, there were so many projects at the centre that 15 persons were employed full-time at DCO. The director of this centre has experiences in fund raising and in supporting several types of cultural activities in the region. The director of DCO asked the author to organize a one-day Vision Conference in March 2002. This conference was the start of the LEADER+ Program in the region.

3.1. LEADER+

LEADER+ is an EU-program that supports development in particularly vulnerable rural regions of the European countries members of EU. It supports creative and innovative projects that can contribute to long-term and sustainable development in these regions. LEADER+ Program is one of the EU's structural founding programs that is planned to run until the year 2006. A 4-year program of 48 million DKr. will be administrated by DCO, will support grass roots innovation.

The LEADER+ Program is based on the idea of a total and integrated development of a vulnerable region, based on a serious analysis of the region's possibilities and limitations. This program aims—using innovative development strategies and action plans—to push the region forward on the basis of the socalled "bottom-up" principle. That is, ideas and projects to be supported must be born in the local communities of the region where local organizations, local firms, innovators, fiery souls, consultants, etc., go through a creative process to identify the best qualified projects for the region. In few words, LEADER+ supports grass roots innovation. This means that the projects have to be deeply rooted in the local communities, and a special committee will make the allocation of the resources, where the relevant actors will be represented. Twelve areas in Denmark were selected to receive support from LEADER+ program, with one of them being the Odsherred region. In the application for funds from the LEADER+ Program, DCO emphasized that the projects selected should support the social and cultural capital of the region and create sustainable activities, firms, and workplaces. The overall theme was *Improvement of life quality*. In addition it is specified that support and founding will be given to projects that

- are knowledge and technology based so that the local products will be both more competitive and environmentally friendly;
- will take initiatives to facilitate access to new markets for small industries; and
- will carry out cultural activities endeavored to shape the image of the region.

3.2. The Vision Conference

As mentioned earlier, it was decided to begin the LEADER+ Program as a Vision Conference, to be organized by the director of DCO and the author of this paper as the main facilitator. The objective of the conference was both

- To create a discussion forum for the different actors around the program to develop common images of ideas, projects, visions, and objectives for the program; and
- To observe a Vision Conference in action and to study the development of the facilitation process; these experiences and approaches will be used in the future during other implementations of the program.

The theme of the conference was *Vividly local communities* – Visions, ideas, and goals for LEADER+ program in the region.

The Vision Conference was carried out at the facilities of the Odsherreds Theatre Centre, a nice place where all the needed facilities were available. The director of DCO and the facilitators (the author and three of his students) met twice to design the conference. Two important tasks were dealt with

- The content and goals of the conference, and
- The many practicalities related to time schedules, speakers, materials, meals, soft drinks, and other facilities that ought to be available.

The conference started 9 a.m. and ended at 4 p.m., and 1 h lunch was planned in the middle of the day. The conference started with a presentation entitled *LEADER* + *as a tool for local development*. The speaker was the director of the LEADER program in Småland, Sweden. This person has a lot of experience about the possibilities and limitations of such a program in connection with community development. The intention was that this talk should give inspiration and ideas for the future creative

work, based on the Swedish experiences. After the main talk, the participants were split up in four subgroups each having a facilitator. The theme for the group work was *Idea generation*—suggests as many projects as possible that should be supported by LEADER+. Brainstorming was used as a technique and its four central rules were used intensively: no criticism, freewheeling, spontaneity, and permission to combine others ideas. This was the diverging process. After 1 h of brainstorming the subgroups met at a plenary session where all the ideas produced were outlined.

During the afternoon the same subgroups started the work, but this time the theme was *Idea adaptation*—select a few projects from the list generated in the morning and work further to design an application to get support from LEADER+. This was the converging phase. This was an exercise in project design and planning. After 1 h of work the subgroups met at a plenary session to report about the selected projects. At the end, one representative of the board of DCO gave a summary of the general results achieved and the work to be done by DCO in the near future. Finally, the facilitator gave a short outline of how the conference went forward as a learning process, and the good and bad experiences of the whole conference were discussed.

3.3. Outcomes

Two weeks later, the facilitator presented to DCO his report from the Vision Conference. This report contained the background for the conference, the planned schedule, the actual schedule, the concrete results of the work of each subgroup and its evaluation by each facilitator, the final evaluation of the whole experience, and some conclusions (Vidal, 2002b).

The conference went ahead as planned, except for a small delay at the beginning and some disturbances caused because the subgroups did not end their work at the same time; but these things did not affect the main group work. The invited speaker was brilliant, gave a lot of inspiration, and gave many examples of simple projects that had been implemented with success in Sweden. He emphasized the importance of supporting small industries, and the necessity of having strategies for marketing and communication.

The reports of each subgroup show that their creative processes were quite different, which is probably due to different participants and different facilitators. In spite of this, many projects on average 25, were suggested in the morning by each subgroup. It was not problem while diverging but the wild ideas were missing. In the afternoon, all the subgroups wanted to continue diverging and had difficulty selecting one or two projects for elaborating as an application. The plenary sessions went very well, very amusing, each subgroup very engaged in their ideas and projects, it reflected a good atmosphere and it was a lot of laughter, a good sign of creative work.

There were many projects within art and culture, and ecology and tourism. However, innovative projects within small industries and IT were missing. This shows the necessity of marketing the LEADER+ program in the sector of small industries. The difficulties in elaborating concrete applications by the different groups show the need for DOC to give support and advice to potential innovators in relation to formulating applications.

In summary, the facilitator concluded that the Vision Conference had been a positive experience. All the participants and the facilitators learned something. This conference was a big communication event where ideas, wishes, dreams, visions, strategies, plans, and objectives interacted with each other and got closer to each other in a constructive way.

4. FACILITATION AS MANAGEMENT

The success of the Vision Conference is determined by the effectiveness and creativity of the group work. Since the participants are invited to the conference it is recommended to use some selection criteria. Some of these criteria could be

- *Representation*: participants represent the relevant actors from the different sectors of the community;
- *Goal compatibility*: participants have similar goals so they can pull in the same direction at the same time;
- *Process compatibility*: participants agree on the framework and tools used during the conference;
- *Deliberation*: participants are able to reflect, think, and act effectively and in a structured and creative manner;
- *Positivism*: participants have a constructive attitude toward group work and collective problem solving, and they communicate openly and honestly;
- Communication: participants are able to talk and listen effectively; and
- *Focus*: participants are able to concentrate on their tasks, avoiding or disregarding any kind of distraction.

It is clear that selecting the participants and distributing them into subgroups is a very important task, which has to be solved seriously in order to develop effective group work and high quality results. A person with knowledge of the local community and experience of working together with people from the organizations involved should undertake this task. In the case study discussed in the last section, the Director of DCO solved this task; he had adequate knowledge of the different human resources of the community, the different relevant institutions, the local firms, and grass root innovators, and the potential conflicts among the different organizations.

In connection with the group work in a Vision Conference there are two social processes to be managed: the problem-solving process and the group process. The

problem-solving process is the way the subgroups in the conference act to solve the task of generating ideas and visions going through divergent and convergent phases. The group process is related to the manner in which the individuals in the group work together, how they learn, how they communicate, their social and power relationships, and how they deal with conflicts. Obviously, these two processes interact in various degrees. In ideal group work, these two processes support each other. We talk about *group dynamics*, when energy and synergetic effects are created in the group work as a result of well-balanced processes where the task is just as important as the group trust and identity.

In a Vision Conference there is a third social process: the facilitation process. The facilitators are the managers of the conference and their main mission is to create and support group dynamics. By focusing and guiding group members' communication and decision-making processes in a structured form, the facilitators can reduce the chances of engaging in faulty processes and harness the strengths of the group. This can be achieved using the following guidelines:

- Use approaches, for example creative techniques, to coordinate members' thinking;
- Specify a set of objective ground rules for the group work;
- Build on the strengths of the group and protect the group against its weakness;
- Balance members participation;
- Support the group while dealing with conflicts;
- Plan time to close the different social processes;
- Make the group reflect and evaluate the group dynamics; and
- Empower the group.

The facilitators are constantly thinking (reflection) and listening to the deliberations in the subgroups so they can make suitable interventions (decision making). An intervention means communicating with the group, giving information and knowledge, and encouraging the participants to think about important topics.

Now, let us elaborate more theoretically about the essence of the facilitation process as opposed to its existence or its accidental qualities or, in other words, the attributes by means of which facilitation as management can be qualified or identified. As we have seen, facilitation is a purposeful process carried out by one or several persons that goes forward between two interacting processes. First, the logical/rational/legal process carried out by a purposeful group (the problem-solving group) that wants to achieve some goals. This process has been called the problem-solving process, and is the scene of objectivity. Secondly, the nonlogical/irrational/illegal process that refers to the chaotic social process provoked by each single participant, by the participants' relations to each other, or by the participants' relations to the facilitator of the purposeful group; these bring into the participants' own subjectivity, intuition, fantasy, and feelings. This process can be called the problem destruction process and is the scene of subjectivity.

The facilitation process will move in the grey zone between the scene of objectivity and the scene of subjectivity. The rational and the irrational processes are fighting one another; the one wants to impose over the other. They are in conflict with each other, but they need each other because while the problem-solving process seeks to achieve realistic solutions, the irrational process will be the basis for the production of new ideas. Rationality needs chaos, and chaos needs rationality. Because of this contradiction, rationality vs. chaos, we can stipulate that facilitation is a *dialectical* process.

Let us also emphasize that facilitation is a purposeful intervention in a social process, a designed process. Facilitation is not a necessity for the evolution of the problem-solving process but it is designed to support the problem-solving process. The facilitation evolves very dynamically in a grey zone trying to construct a bridge between the traditional/conservative problem solving (business as usual) and the new/revolutionary power to change. The purpose of facilitation is to seek that the two above-mentioned processes do not destroy each other, but on the contrary support each other. In this way, in relation to the Vision Conference, traditional problem solving develops into creative problem solving. This dialectical conceptualization of group creativity is a generalization of a neuropsychological model of the brain's function while thinking creatively.

The facilitation process can be managed in different manners, as there are several management styles. The facilitators are the managers of this process. Note that if the group can manage itself, there is no need for a facilitator. That is, the group can learn to facilitate itself. As in any management process, it is a good idea to develop a strategy and design an action plan for the facilitation process and the whole Vision Conference; this will be the theme of the next section.

Management also involves three other central factors: Power, communication, and learning. These aspects are always present in any facilitation process and should be reflected and articulated before, during, and after the conference. Facilitation becomes an art when a synergistic effect is achieved because of the constructive interaction between the rational and the irrational processes. The facilitator then becomes the director of a performance, where each participant plays a central role. By the end of the performance if synergy has been created all the participants will explode in a rush of happiness and pleasure, the pleasure of working creatively and collectively to achieve some goals. It is the same feeling that football players experience after a match where the victory has been the result of a combination of individual creativity, collective hard work, and suitable facilitation (the coaching).

Summarizing, we can state that the purpose of facilitation as management is not only to solve the task, but other additional goals could be

- Each participant is a potential facilitator, therefore, the importance of the learning dimension;
- Empowerment, the participants learn to be more self-confident and learn to work creatively in a group (creativity is an act of liberation from the jail of our own routines); and
- Praxis, the facilitators should be able to learn from the experience, therefore the importance of the evaluation of the conference and the systematization of praxis (Vidal, 2004); in addition learning from failure is a good principle for any facilitator.

5. FACILITATION AS DESIGN

Based on the discussions of Sections 2 and 3, it possible to stipulate that the process of the design of a Vision Conference can be divide into three stages: The preconference planning, the conference in action, and the postconference output.

5.1. Preconference

It is a common belief that detailed planning at the preconference stage is essential to ensure that the facilitators help to create a group work at the conference that focuses on the task, and that this needs tight organization. Moreover, it is also argued that this first stage is as important as running the group work at the conference itself because without sufficient preplanning the chances of success will be greatly reduced.

On the other hand, it is our experience that too much planning and organization might kill spontaneity and creativity in the group work. Therefore, a suitable balance should be found, a suitable framework that gives space for the development of the rational and irrational processes, and for adaptive decision making during the facilitation of the group work.

At this stage, it is of central importance that the facilitators discuss with the organizers of the conference the purpose, the task, the organization, and the management of the group work. Enough time should be allocated to discuss these themes thoroughly so that, at the end of this stage, the organizers of the conference and the facilitators have developed a consensus about the objectives and development of the conference. This goal compatibility is of extreme importance. In addition, the processes, tools, and techniques that might be utilized during the conference should be discussed. How will the participants react to them is a central question to be discussed at this stage.

Another important activity in the preconference stage is the collection of relevant information by the facilitators and the dialogue with the organizers of the conference about central topics and their possible outcome during the conference, in other words *visioning* possible processes and creating scenarios of possible

outputs. The task, as well as the possible conflict areas, should be deeply understood by the facilitators. Previous relevant reports from the organizers and reports from similar conferences elsewhere should also be available to the facilitators.

It is also important that the facilitators use some time to outline in detail the agenda and the organization of the conference itself. Afterwards, these issues should be discussed with the organizers of the conference to achieve consensus.

Even at this preliminary stage, the facilitators should think about the last stage where the conference will be evaluated. An outline of the final report could be made and a simple *information system* could be designed to be used and filled-up during the next two stages. Some facilitators prefer to use a personal *logbook* from the very beginning to take note of important information, events, conflicts, and decisions; such book will be very valuable in the last stage of the conference.

For an experienced facilitator, it is usually sufficient to have two intensive 3-h meetings with the organizers of the Vision Conference to go through the preconference stage. At the end of this stage a short document should be prepared with the intentions, the task, the agenda, etc., of the conference to be send to the invited participants, together with the invitation letter.

5.2. The Vision Conference

At the beginning of the conference day, it is important that the facilitators explain to the participants the purpose and the agenda of the conference, before the work in subgroups begins. Explain that the agenda can be changed if necessary, and that the time schedules must be respected to avoid waiting times when the participants meet for the plenary sessions.

In the Vision Conference, some creativity tools will be used in the problemsolving process. The tools to be used have been selected from a huge number of well-known techniques. The facilitators should be convinced that the selected tools are the most suitable for the conference, but if during the sessions it is detected that the tools are not supporting adequately the facilitator should be capable of switching to other more appropriate tools. The next section will discuss this topic. One thing is crucial: the participants should feel at ease with the facilitator, the process, and the techniques used; in this way true participation is ensured. Finally, the facilitators are the managers of the conference; therefore, all the discussions and recommendations of the last section are applicable here.

5.3. Post-Conference

After the conference, the facilitators have to write an accurate report of the experience. This report should include the following themes:

- An outline of the background and purpose of the Vision Conference;
- The results obtained at each subgroup;

- The evaluation by the facilitator of the work in each subgroup;
- The evaluation of the whole conference by the facilitators, including good and bad experiences; and
- What did we learn from the experience?.

In the last section, we have a list to be used to select the participants. This list can be used in the evaluation process to see discrepancies between our expectations and the achieved results. The facilitators should try to get some feedback on the conference from the organizers and the participants. This could be done by asking the participants to fill in a questionnaire that focuses on the learning aspects of the experience. This is of central importance if it is planned to carry out a new conference after some period of time to produce new visions or to develop strategies.

6. CREATIVE PROBLEM SOLVING

It is difficult to give a simple and general definition of creativity. It is easier if we restrict ourselves to the study of creativity in relation to problem-solving tasks. Creative problem solving means to

- Challenge assumptions by questioning the basis of the problem formulation;
- Recognize patterns because usually chaos and complexity are caused by simple patterns which, when recognized, lead us to the solution to the problem;
- See in new ways, which means looking for patterns from different perspectives: a rational or logical, an organizational or procedural, an interpersonal or emotional, and an experimental or holistic;
- Make connections, or biassociate, because many creative ideas are the result of synergy occurring between two thoughts or perceptions;
- Take risks because the probability always exists that your ideas will lead to failure due to many factors out of your control; and
- Seize upon a chance, which means to take a calculated risk so you can take advantage of an opening that will allow you to move forward toward a creative solution.

In creative problem solving we usually talk about the (4P+T) model. T stands for tools; tools can be thought of as the glue that holds the 4 P's together. The 4 P's represent the following attributes, which are key to creative problem solving:

• P for person. There is clear evidence that individuals vary in their styles of producing original ideas and that creativity, like sports abilities, can be trained and developed.

- P for process. It has been shown helpful to follow a series of process steps for problem solving. Some guidelines have been developed. A key guideline is the need for periods of divergent thinking (producing many alternatives) followed by a period of convergent thinking (selecting some few for further elaboration). The value of using a process is actualized when problem solving with groups.
- P for product. There are some features of the final result of the problemsolving process that can be leveraged to obtain a more effective outcome. The product can be an artefact to be designed, an (action) plan to be implemented, an organization to be changed, a vision to be described, or it can be itself a process. It has been found that deliverables that are either things or processes have common features that can be exploited to make them more novel and valuable.
- P for "press." Press is the organizational culture that acts as the immediate environment for the other P's, organizations, and communities and can stimulate/support or kill creative thinking.

The (4P+T) model can be very useful to keep in mind either when you are working alone or while facilitating a group of problem solvers as in a Vision Conference. Each of the five elements can impact on each of the others and this interaction could have positive or negative effects. In any problem-solving session, you should ensure that some emphasis has been allocated to all five elements. When a group is stuck or even not producing results effectively, the answer usually lies in only one of the five elements—so decide, or ask the group if the difficulty lies in the tools, or in the process, or in the press, or ...

6.1. Mental Locks

To be creative you have to be open to all alternatives. This open mindedness is not always possible to meet in practice, because all humans build up blocks or mental locks during the maturation and socialization process. Some of those locks have external causes, such as family environment, the educational system, and organizational bureaucracy. Other blocks were internally generated by our reactions to external factors or by physical factors. A key to improve your creativity is to become aware of your locks and do something about them. While everyone has blocks to creativity, blocks vary in quantity and intensity from person to person. Most of us are not aware of our conceptual blocks. Awareness not only permits us to know our strengths and weakness better, but also gives the needed motivation and knowledge to break down these blocks. These mental locks can be perceptual, emotional, cultural, environmental, and intellectual.

Perceptual locks are obstacles that restrain us from clearly perceiving either the problem itself or the information needed to register the problem. It is well

known that our eyes can deceive us in observing some figures. Our perceptions are not always accurate.

Emotional locks restrict our freedom to investigate and manipulate ideas. They prevent communicating our ideas to others. These locks are also called psychological barriers and are the most significant and prevalent blocks that impede innovation. Fear of something new is a common characteristic of many individuals in the developed world.

Cultural locks are adapted by exposure to a given set of cultural patterns. The culture of the industrialized countries trains mental playfulness, fantasy, and reflectiveness out of people by placing stress on the value of efficiency, effectiveness, and moneymaking. Taboos and myths are predominant blocks to creative behavior. Therefore, it needs courage to be creative in a culture that does not support creative changes.

Our near social and physical environment imposes environmental locks. Creative persons have usually had a childhood where they were free to develop their own potentialities. It has been documented that organizational climate can be a barrier or a stimulus to creative activities.

Intellectual locks are caused by conservatism and lack of willingness to use new approaches. The same approaches, the same tools, and the same people tackle the same problems for years. People with intellectual locks are usually very negative toward changes and are quick to criticize new proposals.

7. CREATIVITY TOOLS

There are a variety of abilities that characterize a creative individual. Four of the key abilities are discussed in this section as well as four tools to enhance them in concrete problem-solving situations. They are fluency, flexibility, originality, and elaboration.

7.1. Fluency

Fluency is the production of multiple problems, ideas, alternatives, or solutions. It has been shown that the more ideas we produce, the more likely we are to find a useful idea or solution. To have too few alternatives is not a good thing in problem solving, especially if you have to be innovative. There are many tools for producing ideas, alternatives, and solutions. Several researchers have shown that training and practice in these tools does result in a better fluency.

One creative tool, which has been used widely with big success for generating many ideas, is *Brainstorming*. The tool is directed at generating unconventional ideas by suppressing the common tendency to criticize or reject them summarily. In a brainstorming session no criticism is permitted, and freewheeling generation of a large number of ideas and their combination and development are encouraged.

Brainstorming is founded on the associative premise that the greater the number of associations, the less stereotyped and more creative the ideas of how to solve a problem will be.

However, nothing in brainstorming is directed at changing the assumptions or paradigms that restrict the generation of new ideas. This is an excellent technique for strengthening fluency, fantasy, and communication skills. It is a good idea to have a facilitator to prepare and warm-up the brainstorming session, to lead and support the session, and to evaluate the whole process. This tool gives the possibility for the group to use more than one brain, thus achieving a synergetic effect. Generate a multitude of ideas and some of them will be truly useful, innovative, and workable. Asking individuals for input gives them an increased sense of importance and produces an atmosphere for truly creative and imaginative ideas to surface and be acknowledged. Brainstorming can be used for a wide diversity of problems: vision generation, strategy development, planning, policy, organization, leadership, staffing, motivation, control, and communication. However, this tool is not appropriate for broad and complex problems demanding highly-qualified expertise and know-how. Some of the ideas produced may be of low quality or obviously "generalities." Brainstorming is not a good idea for situations that require trial and error as opposed to judgement. Brainwriting is a form of nonoral brainstorming to which the basic brainstorming rules apply. Participants sit in a circle, write down their ideas for solving a given problem and pass their papers to their neighbours in the circle, who then brainstorm the ideas for a specified period, say 5 min, and then pass the papers to the next person.

7.2. Flexibility

Flexibility is the ability to process ideas or objects in many different ways given the same stimulus. It is the ability to delete old ways of thinking and begin in different directions. Flexibility is adaptive when it is aimed at a solution to a specific problem, challenge, or dilemma. Flexibility is especially important when logical methods fail to give satisfactory results.

Looking at modern paintings requires flexibility; they demand looking from different perspectives in order to see different objects, images, and symbols. Seeing people or objects in the clouds requires the flexibility of seeing concrete shapes in cloud formations. Flexible thinking provides for changes in ideas, detours in thinking to include contradictions, differing viewpoints, alternative plans, differing approaches, and various perspectives of a situation.

A family of creative tools, known as *verbal checklists*, has been developed to enhance flexibility in the creative process. Usually this is a checklist of questions about an existing product, service, process, or other item to yield new points of view and thereby lead to innovation. The idea behind the verbal checklist is that an existing product or service can be improved if one applies a series of questions to

it and pursues the answers to see where they may lead. The main questions take the form of verbs such as Modify? Or Combine? These verbs indicate possible ways to improve an existing product or service by making changes in it. Then you will add definitional words to the verb, for instance combine ideas, combine appeals, combine purposes, combine units, etc.

Another important tool for encouraging flexibility is the use of provocative questions. These questions will open up a situation to a broader and deeper direction of thinking, which otherwise might not be produced or considered. They demand thinking about ideas or concepts that have not been thought about previously. Some provocative questions can be

What would happen if water tasted like whisky? Cats could bark? Women could fly? How is a PC like a ship? A flower like a cat? A sunset like a lake? A car like a fork?

- What might happen if it never was Sunday? It was against the law to be perfectionist? People were not creative?
- Picture what might happen if by law it was forbidden to have children? Cars could fly? Men could have children?

7.3. Originality

Originality means getting away from the obvious and commonplace or breaking away from routine-bound thinking. Original ideas are statistically infrequent. This is probably because a creative thinker must be comfortable with being different or belonging to a minority, and usually being alone. In addition, the original thinker must be able to withstand the ridicule and scepticism, which will be directed toward his/her ideas and himself/herself. To enhance creativity we have to be respectful of unusual or crazy ideas or alternatives. You can train your own creativity by producing, let us say, one original idea every week.

Originality is a creative strength, which is a mental jump from the obvious. Original ideas are usually described as unique, surprising, wild, unusual, unconventional, novel, weird, remarkable, or revolutionary. You need courage to be creative, because as soon as you propose a new idea, you are a minority of one. Belonging to a minority is unpleasant. We have to be more respectful and supportive of originality and creative thinkers.

Creativity research has shown that an individual who produces a large number of alternatives is more likely to produce original ideas. A well-run brainstorming will usually produce many original ideas. Moreover, many art media (clay modelling, drawing, painting, performance, etc.) are conducive to the expression of originality.

Picture stimulation is a very popular technique used to provide ideas beyond those that might be obtained using brainstorming. The members of the group look

at a set of selected pictures and relate the information gained from the picture to the problem. The rules of brainstorming should be followed.

Photo excursion uses the same principles of picture stimulation but instead of using prepared pictures for stimulation, participants are required to leave the building, walk around the area with a (Polaroid or digital) camera, and take pictures of possible solutions or visual ideas for the problem; when the group reconvenes, ideas are shared. Another related technique is the Object Stimulation tool where instead of pictures a variety of different objects (e.g. a hammer, a pencil, a board game, etc.) will be used. Sometimes you can use words instead of pictures or objects, and associate them to your problem.

There exist a number of computer programs that can be used to generate alternatives and otherwise add creativity to the problem-solving process. They include a huge number of words and phrases together with many idea associations that are linked to several thousand questions. The words, phrases, or questions are randomly selected, and will provoke ideas and associations that must be related to the problem in question.

Originality can also be enhanced by analogies and metaphors. An analogy is a comparison of two things that are essentially dissimilar but are shown through the analogy to have some similarity. A metaphor is a figure of speech in which two different universes of thought are linked by some point of similarity. In the broadest sense of the term, all metaphors are simple analogies, but not all analogies are metaphors. Nature provides a good source of analogies. Poetry is a good source of metaphors. Similes are specific types of metaphors that use the words "like" and "as"—for instance, the wind cut like a knife; his hand was as quick as a frog's tongue; he sees like a condor and digs as fast as a mole. They too can be used to suggest comparisons that offer solutions.

7.4. Elaboration

Mind Mapping is a visual and verbal tool usually used to structure complex situations in a radial and expanding way. A *mind map* is, by definition, a creative pattern of related ideas, thoughts, process, objects, etc.

Any person from 6 to 100 years can learn to use the technique. The principles are few and easy to understand. The best way to learn it is by practice. After a short period of time you will do it automatically. To make mind maps you have to draw ideas from the centre of the paper and move in a radial and parallel way; to do this you must use both your creative and your logical brain. With some experience you develop your own style, your own pallet of colors, your own symbols, your own icons, etc.

Mind Mapping usually contains the following elements:

• The subject or the problem to be studied or analyzed will be placed in the centre of the paper;

- Key words (names or verbs) are used to represent ideas. As much as possible only a single word is used in a line;
- The key words are connected to the centrum through a main branch and sub-branches;
- Colors and symbols are used to emphasize ideas or to stimulate the brain to identify new relations; and
- Let ideas and thoughts flow free; avoid too much evaluation during the period of development of the map.

When I construct a mind map, I start from left to right, building main branches in a circular way. Then, I continue drawing sub-branches moving in a circular way until the whole sheet of paper is covered with ideas. That is, I have been moving following an expanding spiral pattern. Then, I move in the reverse way following a contracting spiral pattern, supplementing the map with new ideas. These spiral movements provoke the interplay between the creative and the logical brain to be able to combine holistic thinking with particular details of the subject or the problem in question.

Mind Mapping has been applied to many areas:

- To take notes during an interview or a lecture;
- To attack a planning problem;
- To deal with any problem;
- To take notes while reading a book or an article;
- To make transparencies for a lecture;
- To plan a party or a trip; and
- Many other applications—use your fantasy.

7.5. Divergent and Convergent Thinking

Experience has shown that it is recommended in a creative process to start with a divergent thinking process to produce as many ideas or solutions as possible and thereafter to switch to a convergent thinking process to select the few most promising ideas. This is usually illustrated in the form of a diamond.

Some of the rules for divergent thinking are

- Image, reframe, and see issues from different perspectives;
- Defer judgement; criticism or negativity kills the divergent process, be open to new experiences;
- Quantity breeds quality; to have good ideas you need lots of ideas;
- Hitchhiking is permitted; in this way a synergetic effect can be achieved;
- Combine and modify ideas; in this way you can create many ideas;
- Think in pictures; to create future scenarios you can even simulate potential solutions;

- Stretch for ideas, imaging ideas beyond normal limits; and
- Do not be afraid to break paradigms, avoid destructive criticism, and add value to the challenged concept.

Some of the rules of convergent thinking are

- Be systematic, find structure and patterns in the set of ideas produced;
- Develop ways to evaluate ideas, assess qualitative and quantitative measures of ideas;
- Do not be afraid of using intuition; this is the way most important decisions are made;
- Avoid quickly ruling an area out of consideration, take your time or, even better, sleep on it;
- Avoid idea-killer views, try the impossible, do not be afraid to clash against a wall—it is not for sure that the wall will always hold;
- Satisfy, do not expend to much time in looking for the optimal solution of an ill-structured multicriteria problem,
- Use heuristics, use common sense and experience-based rules; and
- Do not avoid but assess risks, it does not mean being blind to risks. For serious consequences be sure to have a contingency plan.

As we have seen, the Vision Conference contains phases of divergent and convergent thinking. Divergent thinking produces as many solutions as possible within the available time. The participants will vary in the way they prefer to produce ideas; some will do it by association, others by unrelated stimulus to enhance fluency, flexibility, and originality enhancing the elaboration of ideas. Convergent thinking, on the other hand, requires that the participants use skills in reality testing, judgement, and evaluation to choose the one or two best options from a number of possibilities.

It is not unusual that, in a group, some members will very easily diverge, that is, they will build a list of alternatives, while others will converge very fast by trying to select the best solution from the list and the rest will be passive not knowing what is required of them. Therefore, a facilitator is needed to design a clear and visible process map to align the group. Usually the facilitator does not select the participants of the group; he has to identify the profiles of the participants very quickly. An in-depth discussion of creative problem solving can be found in Vidal (2002b).

8. CONCLUSIONS

The Vision Conference was formatted as a strategy to develop visions in the form of ideas or projects for developing an organization or a community. The design of the conference task embodies the principles of creative problem solving

while the social organization of the group expresses the principles of facilitation of responsible participative democracy.

The Vision Conference is characterized by three main aspects:

- The focus on group dynamics while other approaches focus on methods or on approaches for task solving as the steering factor; this is the case, for example, of the Delphi technique;
- The Vision Conference is based on modern concepts of creativity and the facilitation of creative problem-solving processes; and
- The Vision Conference emphasizes collective work and collaborative learning through the interaction of the participants with the aim of learning how to build, sustain, and develop responsible participative communities.

We have learned to design, manage, and evaluate Vision Conferences; the next task is to try to answer the question: What did we learn from this experience? This is the field of the systematization of praxis. To systematize is to describe, structure, and reflect analytically on the development of a practical experience, see further Vidal (1991, 2004).

Finally, in what concerns our case study, DOC has adopted the Vision Conference and some of its tools and they have been used as an essential part of DOC's strategical and planning work.

ACKNOWLEDGMENTS

Thanks are due to Karsten Lægdsmand, director of The Development Centre in Odsherred, for his constructive support in the development of the main ideas behind the Vision Conference, and to Sarah Mason for her devoted work in improving the readability of this paper.

REFERENCES

Courger, J. D. (1995). Creative Problem Solving and Opportunity Finding, boyd&frazer, Danvers, MA. Heron, J. (1999). The Complete Facilitator's Handbook, Kogan Page, London.

- Jungk, R., and Müller, N. (1987). Future Workshops: How to Create Desirable Futures, Institute of Social Inventions, London.
- Vidal, R. V. V. (1991). The systematisation of practice. In Jackson M. C., et al. (eds.), Systems Thinking in Europe, Plenum Press, New York, pp. 443–448.
- Vidal, R. V. V. (2002a). LEADER+ i Vestsjællands Amt Et Visionsværksted, Udviklingscenter Odsherred, Nykøbing Sjælland, Danmark, p. 26 (in Danish).
- Vidal, R. V. V. (2002b). Creativity and Problem Solving, Lecture Notes, IMM, Technical University of Denmark, Lyngby, Denmark, p. 59.
- Vidal, R. V. V. (2004). From action to learning: The systematisation of alternative consulting experiences. AI&Soc, 18(3), 134–148.