UNCONFERENCING AS METHOD TO INITIATE ORGANISATIONAL CHANGE:

A case study on reducing CO2-emissions of a university

Abstract

Purpose: This article reviews and discusses the potential of available event formats for facilitating the initiation of organizational change processes. It presents unconferencing, a relatively new event format, which seems to provide unique opportunities for this purpose. It reports and analyzes the case of a large Swiss university which initiated its pro-sustainability transformation by organizing an unconference.

Design/methodology/approach: Researchers studied the effects of unconferencing and the mechanisms which brought them about in a case study. In the empirical setting of a large Swiss university, a qualitative study triangulating participatory observation, narrative and problem–centered interviews, participant survey and documentary analysis was carried out. Data were collected and analyzed at different points in time.

Findings: Empirical findings suggest that unconferencing is an appropriate event format for facilitating the initiation of the pro-sustainability organizational change process of a university. In our case, unconferencing achieved systems connectivity, enabled mutual learning and generated excellent outputs in form of project proposals.

Social implications: The article raises the awareness of other universities and organizations of an event format they might wish to apply in their organizational change processes.

Originality/value: So far, research is not able to provide satisfactory answers to the question how to best initiate organizational change. This paper provides a systematic investigation of available methodological approaches. It furthermore explains unconferencing which is increasingly applied by practitioners but so far stimulated only little discourse in the scientific community.

Key words: organizational change, unconferencing, event formats, sustainable universities

Paper type: Case study

1 INTRODUCTION

In the world of business, *unconferencing* has proven to be popular amongst practitioners: During the last three years, it has been discussed in online magazines like the Digital Web Magazine (Follett, 2006), Business Week (Kirsner, 2007) and MSDN Magazine (List, 2009); and is regularly applied by a growing number of companies for involving in- and external stakeholders into the development of innovative ideas and organizational change processes (e.g. Oracle's OpenWorld Unconference[1] or IBM's HabitatJam[2]). However, although increasingly applied, the event format is not yet investigated empirically or in depth, so that it remains unclear how and to which extent unconferencing benefits organizations heading for organizational change.

Unconferencing is strongly related to the event format of dialogue conferences (Ekman Philips and Huzzard, 2007). Wolf and Troxler (2008) discussed the epistemological roots underlying unconferencing. They conclude that it is based upon a complex theoretical concept linking Meads' (1972) theory of perspective taking, Luhmanns' social system theory (1995) and Habermas' (1987) theory of communicative actions. This article aims at contributing to literature in two ways: *First*, we review and discuss available methodological approaches, i.e. event formats, for facilitating the initiation of organizational change. We position unconferencing in relation to other event formats. *Second*, by reporting the case of a large Swiss university which organized an unconference to start organizational change towards sustainability, we contribute an empirical analysis to literature. Aim of this particular unconference was to engage students together with academic and non-academic staff and external experts into a mutual learning process (Scholz, 2000) and to facilitate the creative development of project proposals for reducing CO2 emissions caused by campus operations. We investigate whether and how unconferencing supported the university in its organizational change process and conclude on the event formats' potential for facilitating the initiation of similar organizational change processes.

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[1] http://www.oracle.com/openworld/2008/unconference.html
[2] http://www-03.ibm.com/industries/government/us/detail/resource/K271063P55381C77.html

2 CONFERENCES AND OTHER EVENT FORMATS

Starting organizational change necessitates methodological approaches, and in particular event formats, which facilitate mutual dialogue and knowledge sharing amongst the members of an organization (Ekman Philips & Huzzard, 2007; Wolf & Troxler, 2008; Scholz, 2000). However, event formats, and even participatory ones, are manifold. Below we are going to have a closer look at panels, workshops and conferences, transactional approaches (such as future workshops, opan space and dialogue conferences) and proper unconferences.

2.1 Panels, Workshops and Conferences

Relying solely on a technocratic approach where expert-panels search for solutions that are subsequently implemented top-down in organizational change processes means to exclude important perspectives, and may lead to measures that lack acceptance and social support. It is therefore not an appropriate approach for initiating organizational change processes (Adomssent et al., 2007; Lozano, 2006; Richardson & Lynes, 2007; Ekman Philips & Huzzard, 2007).

Organizing *workshops* with conventional free interaction processes involving representatives of stakeholder groups in discussions on how to best improve a given situation and induce organizational change represents a participatory alternative. However, unstructured group discussions in form of free interaction processes show some characteristics that gravely impair their effectiveness (Hackmann, 1998; Hansmann, Crott, Mieg, & Scholz, 2009; Hansmann, Crott, & Scholz, 2007; Janis, 1972). Single persons or particular topics often dominate the discussion in freely interacting groups (Delbecq, Van de Ven, & Gustafson, 1975). This is especially harmful if the status, power and participation rate of group members do not correspond to their expertise or if ideas and topics are suppressed (Crott & Hansmann, 2003; Henningsen, Henningsen, Jakobson, & Borton, 2004; Janis, 1972; Steiner, 1972). Depending on group size, social loafing (Karau & Williams, 1993) and connected motivation problems may arise as individuals lack opportunities and responsibility for contributing to the discussion. Conformity pressures can enhance the convergence of opinions within

groups and prevent members from expressing new ideas and arguments. As a consequence group discussions may finish before all important information is exchanged and all voices are heard (Hall & Watson, 1971; Stasser, Stewart & Wittenbaum, 1995; Stewart & Stasser, 1995; Winquist & Larson, 1998).

Conducting a conventional *conference* on opportunities for organizational change is a further option. Conferences are common channels of dialogue and discussion that bring together experts from various fields with disparate purposes and are centred round issues embedded in multiple contexts (Hoffman, 2001). Scholars acknowledge the importance of field-wide conferences for joint sense making and strategic agenda setting (Anand & Watson, 2004; Meyer, Gaba & Colwell, 2005). Yet, conventional conferences featuring lectures, panel discussions and social events are focused on presentation rather than discussion of content. They tend to serve political stage setting for topics and introduction of actors as powerful players (Anand & Watson, 2004, Wolf & Troxler, 2008). Presenters and moderators strive for perfection and apply defensive mechanisms that leave only little room for learning by trial and error and open discussion.

2.2 Transactional Approaches for Initiating Organizational Change

As Lewin (1952) and his successors indicate, a departure from the above described standard event formats is required for stimulating collaborative and innovative thinking, and utilizing the potential of events as learning environments and empowering participants. Lewin (1952) demonstrated that traditional lectures are not an effective means of changing behavioral pattern and habits, whereas involving individuals in guided group discussions with peers can initiate change. According to Werner (2003) these *transactional approaches* involving group-based persuasion are more effective since they integrate social context and thus allow for participants to mutually convince each other that barriers can be overcome and behavior change is in fact feasible (see also Ajzen, 1991; Bandura, 1986). Also psychological involvement in discussions in small groups, where people can actively contribute, is presumably higher as compared to listening to a lecture. Perceived relevance of the messages and message scrutiny could thus be

increased for making attitude changes achieved in such discussions more stable and behaviorally effective (Petty & Cacioppo, 1986).

Early alternative event formats developed for reaching these objectives are *future workshops* (Bunker & Alban, 1997; Scholz & Tietje, 2002; Troxler & Kuhnt, 2007), *open space technology* (Owen, 1997), and *dialogue conferences* (Shotter & Gustavsen, 1999; Ekman Philips & Huzzard, 2007). These event formats are designed for providing participants with a space to meet and for enabling them to take over ownership of the event topic. However, although very open for participant contributions, one of the major problems of future workshops and open space technology is that they do not necessarily break away existing power structures or avoid the build up of new ones. Single participants are in fact provided with the opportunity to speak up, but power and hierarchy might force them to step back again and stay silent (Wolf & Troxler, 2008). On contrary, the guiding principle of dialogue conferences is democratic dialogue based on Habermas' (1987) ideas of free communication. While these events are facilitated in a way aimed at creating *"symmetry between them in terms of making contributions and arranging the conversation to stimulate participation."* (Ekman Philips & Huzzard, 2007; 10), the format does not actually guarantee this in all cases (Ekman Philips & Huzzard, 2007; 21 f.). Yet formats such as open space and dialogue conferences are well known and frequently used as intervention methods in action research projects for creating commitment to organizational change (Gustavsen, 1992; Ekman Philips & Huzzard, 2007).

2.3 Unconferencing

The term unconferencing indicates on the one hand the type of event (conference-like), what may be seen as a tribute to its roots. On the other hand, the prefix can be interpreted as a statement signifying a wish or need for change. Unconferencing allows for the inclusion of structured group processes that prevent negative characteristics of free interaction processes as well as for the involvement of expert knowledge within a participatory process while preventing their dominance over 'conventional' participants. It aspires to engage different individuals, communities or schools of thought into meaningful dialogues about the future of an organization or society. In

further development of the methodology applied in dialogue conferences which is focused on facilitating dialogue in group conversations (Ekman Philips & Huzzard, 2007), unconferencing additionally makes use of performative methods like performance, video, audio, graphic art, crafting, etc. (Jones, 2006; Guiney Yallop, Lopez de Vallejo & Wright, 2008; Roberts, 2008).

Wolf and Troxler (2008) discussed the epistemological roots underlying unconferencing. They conclude that it is based upon a complex theoretical concept linking Meads' (1972) theory of perspective taking, Luhmanns' Social System Theory (1995) and Habermas' (1987) theory of communicative actions, and builds heavily on the event format of dialogue conferences and develops it further. All situational components are based on the architectural principles for social constructionist learning environments (Gergen and Thatchenkerry, 1996), in detail

- reflection in action and reflection on action (Bokeno, 2003),
- tackling complex problems involving diffuse initial situations (Schön, 1987),
- authenticity and embedding problems in real life situations (Chaiklin & Lave, 1998), and
- enabling participants to take responsibility step-by-step, i.e., legitimate peripheral participation (Lave & Wenger, 1991).

Unconferencing advances the concept of dialogue conferences insofar as it explicitly addresses two conditions which render democratic dialogues in organizational and/or social change possible (Habermas, 1987; Ekman Philips & Huzzard, 2007), namely

1. *mutual learning* as socio-cognitive condition which allows perspective taking (Mead, 1972; Goffman, 1974) and knowledge transformation, i.e. *"altering current knowledge"* (Carlile, 2002: 445; Leonhard-Barton, 1995; Carlile, 2004).
2. *the creation of structural links* (Luhmann, 1995; Baitsch & Heideloff, 1997; Mcmillin & Dyball, 2009) and breaking away power structures as structural condition.

Typical negative effects of free interaction processes are counteracted in unconferences by the separation of the idea generation phase from idea refinement and evaluation phases as suggested by proponents of brainstorming (Osborn, 1957) and nominal group technique (Delbecq et al., 1975). Expert knowledge is made available by assigning experts the role of facilitators and knowledge keepers, which can be consulted for information (Stasser et al., 1995).

3 RESEARCH QUESTIONS AND METHODOLOGY

From the above discussion of literature on event formats we conclude that unconferencing theoretically provides unique opportunities for facilitating organizational change. However, the event format was not sufficiently investigated empirically, so that it remains unclear whether and how unconferening causes the theoretically predicted and eventually further effects and how far it produces viable outputs for organizations. We therefore studied the effects of unconferencing and the mechanisms which brought them about in a case study. We focussed on the following three sets of research questions:

1. Does unconferencing bring about the theoretically predicted effects when it is applied for facilitating the initiation of organizational change?

    a. Systems connectivity: Does unconferencing help in bringing together participants from different organisational sub systems and is the creation of structural links between them supported? Is a power free environment created?

    b. Mutual learning: Does unconferencing facilitate individual and social learning processes, i.e. perspective taking, knowledge transformation and identity development?

    c. Performance and outputs: Are the results of an unconference viable, creative, and cost-effective? Is unconferencing suitable for facilitating the start of organizational change?

2. Does unconferencing bring about further effects which are not predicted in literature?

3. What are the underlying mechanisms in unconferencing that bring about these effects, i.e. hat made the participants feel, interact and react in a way that brought about the effects?

A thorough case study appeared to be the most adequate research strategy for studying a system like an event – in our case an unconference – which is bounded by time and place (Creswell, 1998). Case studies allow investigating *"(…) a contemporary phenomenon within its real-life context, when the boundaries between the phenomenon and*

the context are not evident" (Yin 2003: 23). When searching for an appropriate case to study the effects of unconferencing, we were looking for four characteristics: The organization applying an unconference for initiating organizational change should (1) comprise multiple internal stakeholders who (2) are related through various, interconnected but clearly recognizable power structures. The organizational change project should (3) both affect and benefit all internal stakeholders, and (4), all stakeholders should be able to equally contribute knowledge and expertise to the change process.

4 CONTEXT – SUSTAINABLE UNIVERSITY

We identified an adequate case in universities striving to become sustainable. Universities have multiple internal stakeholders, namely management, academic and non-academic staff and students. Multiple power relations exist between these stakeholders, but all members of a university can contribute to sustainable development through their expertise and internal knowledge of university operations and their creativity. Contributions of all stakeholders are helpful for detecting potentials, generating ideas, and evaluating options for bettering the sustainability performance of the own university. The change from a traditional into a sustainable university requires collective agency involving socially coordinated and interdependent efforts for promoting sustainability oriented behavioral, social, technological, and economic changes (Bandura, 2001; Karol, 2006; Barth, Godemann, Rieckmann, & Stoltenberg, 2007; Beringer, 2007; Buchanan & Dawson, 2007; Skordoulis & Dawson, 2007; Mcmillin & Dyball, 2009; Selby, 2009, Azzone & Noci, 1998). The participation of all members of a university is key to an organizational change process as it is a discursive multi-story process (Oswick, Grant, Michelson & Wailes, 2005; Buchanan & Dawson, 2007; Skordoulis & Dawson, 2007). For achieving a maximum transformative momentum and acceptance of change, support is needed both top-down from university board and faculty and bottom-up from students and employees (Richardson

& Lynes, 2007; Adomssent et al., 2007; Gudz, 2004; Koester et al., 2006, Eisler, 1994; Selby, 2009; Beringer, 2007).

4.1 The Case Study: Organizational Change for CO2 Reduction

ETH Zurich is a large Swiss technical university. In 2009, it counted 15378 students, 388 professors, 4362 members of scientific and 1230 members of technical and administrative staff. Research and teaching encompass five different areas, namely Architecture & Civil Engineering (covered by two university departments), Engineering (five departments), Natural Sciences and Mathematics (four departments), System Oriented Natural Sciences (three departments) and Management & Social Sciences (two departments). The 2009 annual university budget was 1307 million CHF (ETH Zurich/Corporate Communications, 2010).

In 1999, the university established a department mandated to manage its environmental resources. This department is held responsible for measuring and reducing environmental impact, ensuring efficient energy consumption and becoming a role model in environmental management. In 2008, the university board decided to take the initiative for higher transformative impact through an integration of students into environmental activities. It formed a task force to develop a sustainable initiative for reducing the per capita consumption of 1.5 tons in 2007 to 1 ton per capita/year (ETH Life Print, 2008).

The task force developed an online platform where all members of the university could submit, discuss, organize, and follow up on project proposals for CO2 reduction. The introduction of that platform was supported by a launch event aimed at generating project ideas to reduce CO2. An unconferencing approach was chosen, and in November 2008, the university ran a 24-hour unconference with approximately 110 students, professors and environmental experts.

The event attracted participants from 13 different disciplinary backgrounds such as Environmental Sciences, Mechanical and Process Engineering, Management, Technology and Ecosystems, Materials Sciences, Informatics, and Electronics (see figure 1).
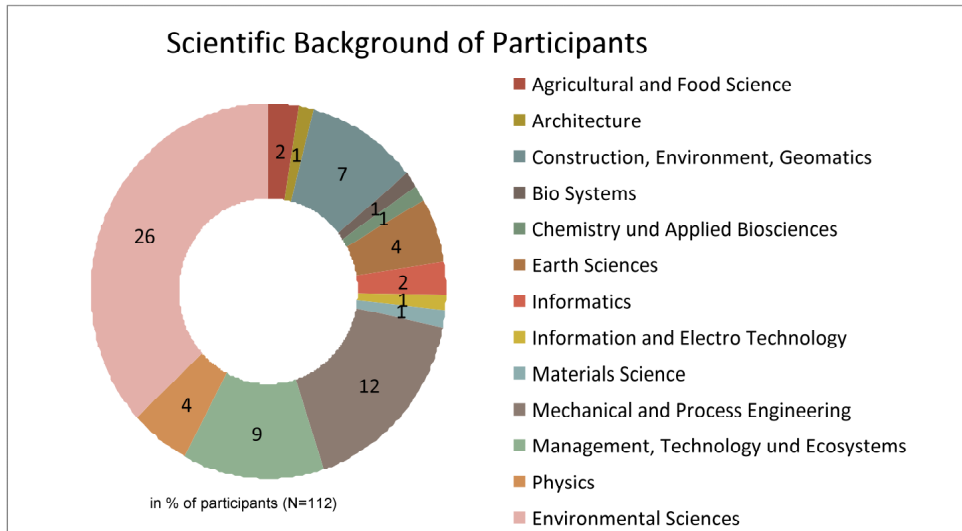
Figure 1: Scientific background of participants

Educational degrees of participants ranged from Bachelor, Master, MAS and PhD students to associate professors.

4.2 The Unconference: Event Design

The unconference consisted of eight steps.

1. After a general introduction by the university's vice president it started with an exercise to visually map the topics future projects might want to address regarding five pre-determined domains: sustainability in general, water, energy, mobility and waste.

2. Next, a structured method was used so participants could meet at least five other participants who they had not known before.

3. In an idea market participants were asked to put forward their for CO2 reduction. Participants presented 50 initial ideas. In a collective effort of merging and abandoning ideas, 17 proposals were identified that could be developed by dedicated groups of participants during the rest of the unconference.

4. In the form of a reception and a dinner, business people and experts from outside the university were brought in to help participants sharpen and focus their proposals.

5. After dinner, the groups were given the formal requirements to formulate their proposals, and they started to work on their proposals. Participants were free to work overnight; however the last groups stopped at 2 am for getting a rest.

6. In the morning of the second day, external experts joined the groups again and helped them to mature their ideas. Proposals had to be submittet by noon.

7. While a panel of university professors and experts from industry evaluated the proposals, groups presented their work to each other and acted as a "peoples' jury" to select the two most popular project ideas.

8. Two hours later, the panel presented the three winning projects with an award. The event closed with a brief celebration and reception.

5 METHODS

As a case study, our investigation required collecting extensive data from multiple sources of information (Eisenhardt, 1989) to present an in-depth picture of the case (Creswell, 1989) and to ensure the internal validity of findings (Denzin, 1989; Flick, 1992). Equally, the research questions (see section 3) required data collection from multiple sources. Our first set of questions investigated whether we can identify the effects of unconferencing as predicted from literature. We were interested in studying the gestalt of the effects, i.e. how they will look like in case they are observable in reality. To structure these observations, we made use of observation propositions from literature but were not limited to them. The second and third sets of questions openly explored further (unexpected) effects of unconferencing and the mechanisms which brought about the identified effects during the unconference. These premises led us to a predominantly qualitative research design in which we studied *"things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them"* (Denzin & Lincoln, 1994: 2). Our main research interest was to build a complex, holistic picture of how and why the effects of unconferencing occur, based on data gathered with different qualitative methods in a non-experimental setting (Creswell, 1998).

This situation implied a triangulation of different mainly qualitative and some quantitative research methods (Denzin, 1989; Flick, 1992). Triangulation is an approach *"towards further enriching and completing knowledge and towards transgressing the (always limited) epistemological potentials of the individual method."* (Flick, 2009: 444). In our case study, we used participatory observation, narrative interviews, a participant survey, document analysis and problem-centred interviews. Data were collected and analysed at different points in time and by different groups of researchers. The triangulation of data sources, investigators and methods (Denzin 1989) allowed us to gather complementary data for our study. Table 1 below summarizes the methods applied for data collection[3]:

Methods Applied	Short Description of Data Gathering Procedure	Point in Time of Application	Objective of Method Application
Participant observation	Participant observation by seven student-researchers (identity covered) during the 24 hours of unconference Documentation in structured observation guidelines	During unconference, 13. and 14.11.2008	to study the 'gestalt' of the effects of unconferencing predicted in literature to explore further (unexpected) effects of unconferencing and the mechanisms which brought them about
Narrative interviews	20 narrative interviews held with participants of the unconference, minimum one person from each of the 17 project groups held face to face by four student-researchers, length: 3-12 minutes (average: 6.25 minutes) recorded and transcribed verbatim, 45 pages of interview protocols	14.11.2008, after the end of unconference	to understand how the event process unfolded over time from the perspective of the participants to unravel the participants' perspectives on the event and its effects, i.e. get hold of the categories and concepts they use to describe what happened
Participant survey	Four qualitative questions as part of the feedback survey. Survey handed in by 48 of 112 participants qualitative questions answered by 45 participants	14.11.2008, after the end of unconference	To gather data on subjective perspectives of participants on specific effects such as: in which sense learning took place during the event benefits that they might have gained from participation the atmosphere which the event had created and the emotions which it brought about
Document analysis	Collection and analysis of documents: jury judgements on proposals (17 judgements) one ETH magazine article,	mid November 2008 – April 2010	To understand how the institution officially assessed and communicated the effects of the unconference

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[3] The procedure of data analysis is described in detail in chapter 5.2

Methods Applied	Short Description of Data Gathering Procedure	Point in Time of Application	Objective of Method Application
	three newsletters and three reports on follow up activities		

Problem-centered interviews	Follow up study:
	  12 problem-centred interviews (10 participants and two organizers of the 2008 unconference)
	  held via telephone by four student-researchers, length: 30-45 minutes
	  recorded and transcribed verbatim, 71 pages of interview protocols
		February – April 2010	To gather perspectives of the former participants and the process owners on
			  how the transformation process unfolded after the unconference and
			  which effects of unconferencing triggered this development in what way

Table 1: Methods used for data collection

Below, we describe the methods for data collection and the procedure of analysis in detail.

5.1 METHODS FOR DATA COLLECTION

5.1.1 Participant observation

Seven researchers participated in the event in the role of *observers-as-participants* (Junker, 1960; Gold, 1958). The objective of this part of the study was to investigate the gestalt of the effects predicted in literature. Furthermore, we wished to discover further effects of unconferencing and investigate the mechanisms which brought them about during the event, i.e. to shed more light on how social order in our unconference was (self-)generated in and through its interactions and practices (Holstein & Gubrium, 2008; Jorgensen, 1989).

Conference participants were informed that there were researchers observing their actions and communications, but their identity remained concealed. Participant observation typically foresees moving from descriptive, very open observation of the field towards selective observation aimed at finding further evidence and examples (Spradley, 1980; Flick, 2009). In our case study, we however faced a specific challenge: Other than in ethnographic studies (Hammersley & Atkinson, 2007), the research field emerged at the moment we started the observations and dissolved 24 hours later with the end of the unconference. This allowed us to place our researchers into the field

from its emergence on. The short time frame however made it difficult to keep their identity concealed *and* to gather meaningful data beside their engagement as event participants in the field. We therefore followed the advice by Flick to use structured observation guidelines (2009: 227).

Researchers developed and applied structured observation guidelines that differed for event phases in the complete group and in the project group (see Annex A). These observation guidelines represent our operationalization of effects of power structures, the creation of structural links, individual knowledge transformation and social learning into observable individual and social actions and corresponding quantitative measures. In particular, literature suggests focusing attention on the following observable phenomena which might act as indicators for the effects predicted (see table 2):

Effects	Structural effects		Socio-cognitive effects	
	Creation of new structural links	*Creation of a power free environment*	*Perspective taking and social learning*	*Individual knowledge transformation*
Indica-tors	Participation of people with different backgrounds Participants get to know new people Dissolution of existing groups Development of totally new groups	Roles in project groups emerge due to expertise No exclusion of participants due to first level impressions Active listening Open idea discussion Openness to present even unfinished ideas Objective critics	Initial project ideas are changed as result of group discussions Group members develop a common vision of project idea Group members develop common working routines	Participants critically reflect the process Participants formulate benefits and learning points about the process Participants are keen to implement the project after event Participants change roles during the proposal development process

Table 2: Effects of unconferencing predicted in literature

We included these indicators into the observation guidelines. We are aware that the predominantly quantitative categories in the observation guidelines structured the observation focus of our participant observers. Hence, we added a field labelled with 'other notes' which allowed for documenting any other observation. In addition, several observation categories additionally include fields for open answers or required to write down open observations (e.g. "In case of yes, what happens?"). Furthermore, we reflected these constraints in the research team. All researchers involved into observations were aware of this issue and tried to compensate it – as far as possible - through writing down further observations.

During the unconference, observation guidelines were filled in by the participant observers for the three phases in the complete group, i.e. domain mapping, networking, idea market, as well as for five different phases of work in project groups (starting phase after dinner, after the first two hours, after breakfast the next morning, two hours after breakfast, 30 Minutes before hand in of proposals).

5.1.2 Narrative Interviews

In narrative interviews (Schütze, 1976; 1983, Flick 2009: 179 f.), 20 participants were asked to reconstruct their individual experience during the unconference. When selecting interviewees, we made sure that we had at least one representative from each of the 17 project groups. The 20 face to face interviews were held right after groups handed their proposals in. The objective of the narrative interviews was to understand how participants experienced the event process as well as to identify their perspectives on the process, i.e. the categories and concepts they developed and would use to describe it. Narrative interviews are characterized by a chronological approach (Creswell, 1998; Schütze, 1976: 197), and therefore appropriate for studies aimed at understanding how – from the perspective of the participants - an event process unfolds over time.

Flick characterizes narrative interviews as *„a richer version of the events and experiences than the other forms of presentation"*(2009: 179; see also Flory & Iglesias, 2010), including other forms of interviews. The reason is that what people know and experience in their lives is not always integrated into their theories, in fact this *"knowledge is available to informants at the level of narrative presentation but not at the level of theories."* (Hermanns, 1995: 185). The justifications and theoretical accounts which the narrator adds to the story for enabling the listener to understand it provide researchers with rich material on theoretical concepts and categories the narrator applied and applies to the process. Narratives therefore allow researchers to *"reach a much more comprehensive understanding about certain phenomena, rather than the positivist quantitative methodologies* [and, the authors] *are extremely powerful devices used to comprehend organizational processes and changes."* (Flory & Iglesias, 2010: 115, see also Simpson, 2010).

The 20 interviewees were asked the following question to stimulate the narration: *"Mister/Miss…, I would like to ask you to tell me what happened to you during the last 24 hours. Please start with the situation at the beginning of the event and describe thereafter everything that happened during the event until now."* Interviewees told their story without any interruption by the interviewer as suggested by the narrative method (Lincoln and Guba, 1985). Interviews lasted between 3 and 12 minutes. All interviews were tape recorded and transcribed verbatim.

5.1.3 Participant survey

At the end of the unconference, participants were asked to fill in a participant survey. This survey contained quantitative questions asking participants to rate their satisfaction with the event, the work in project groups, the jury's decision, the moderation, the place and the catering, and a qualitative question requesting suggestions on changes in the organisation/design of a potential follow up event. In addition, there were three open questions:

1. What have you learned during the event?

2. What is your major personal benefit from the participation into this event?

3. How do you feel right now, after this event?

The objective of these questions was to get further data representing different subjective viewpoints of the participants (Flick, 2009, Bortz & Döring, 2002: 213) which would complement the data gathered in narrative interviews.

Question 1 was asked for understanding in which sense learning took place during the event from the perspective of the participants. Literature suggests that knowledge transformation and social learning would be most probably effects of unconferencing, but so far there was no study that confirmed this effect and described it's gestalt from the perspective of the participants. Question 2 was interested into any benefits that participants might have gained from participating in the event, thereby opening up the narrow focus of question 1 and focussing on the gestalt of any effects of unconferencing experienced by participants. Question 3 was aimed at sensing the atmosphere which the event had created and the emotions which it brought about. It was the closing question of the survey constructed for allowing the participants to express how they felt, to add expressions of emotions and feelings and to reflect on.

The participant survey was handed in at the end of the unconference by 48 of the 112 participants (44% return rate). 45 of the participants answered the three qualitative questions.

5.1.4 Collecting documents as data

Written documents provide us with an insight into social realities at institutional contexts. They "*represent a specific version of realities constructed for specific purposes.*" (Flick, 2009: 259; see also Prior, 2003). For this case study, we collected documents that would allow us to understand how the institution assessed and communicated the effects of the unconference. These documents were produced by different ETH officials, i.e. actors formally involved into the unconference and the transformation process like members of the jury, process owners of the transformation process and ETH journalists writing for the ETH magazine. We collected relevant internal and public documents such as jury judgements, environmental reports of the university and ECOWORKS newsletters over the period of one and a half year from November 2008 to April 2010.

5.1.5 Problem-centered interviews

From February to April 2010, we run a follow up study where we conducted 12 problem- centered interviews with 10 former participants of the unconference and the two unconference organizers and owners of the transformation process. The aim of this follow up study was to gather perspectives of the former participants and the process owners on how the transformation process unfolded after the unconference and which effects of unconferencing triggered this development. The problem-centered interview was an adequate research method because it is aimed at understanding the experience(s) and stories of the interviewees. The interviewer uses an open-structured interview guideline as a basis for keeping the interview focussed on a specific problem. At the same time, the dialogic form of the interview allows the interviewee to bring up individual themes and leaves room for narratives describing processes (Witzel, 2000; Flick, 2009).

For these interviews, we first contacted the idea owners of the project groups formed at the unconference. If they were not available for an interview (e.g. because they had already left the university), we seductively contacted further group members. At the

end, we were able to interview members of 12 project groups. In addition, we interviewed the two process owners of the transformation process who organized the unconference in November 2008 because we expected them to have a more holistic point of view on the overall process.

These interviews were held via telephone because of the geographic distribution of interviewees and resource restrictions of the project. The interview started with the following question: *"If you reminisce about the unconference one and a half years ago, how did you experience the situation there, how did you feel?"*. This question was aimed at guiding the interviewee's memory back to the unconference situation by re-activating the emotions he or she would most probably have aligned to the experiences made in this situation. The next set of questions asked more specifically for experiences the interviewees described for exploring them in-depth. Thereafter, interviewees turned to the project which the interviewee developed together with its group. After asking for a description of the project idea, the interviewees were requested to tell the story of the process that happened after the unconference, how the project developed, what experiences they made during the transformation process, and what they experienced as barriers and enablers. Interviewers specifically asked for the link between the experiences the interviewees made during the further project development process and its initiation during the unconference for unravelling effects of unconferencing on the overall transformation process and the mechanisms which brought them about.

5.2 Methods for Data Analysis

The research team that analysed the data consisted of a professor and three groups of student-researchers, group 1 with three and groups 2 and 3 with four members. Whereas the professor was involved in the whole process of data gathering and analysis of the case study, the student groups were gathering data at different points in time and with different methods. According to their responsibilities in data collection, they were involved in the follow up process of analysing data. Table 3 displays who was involved in what part of the analysis:

Methods for data collection	Researchers involved in data analysis
Participant observation	Student-researchers from group 1 and group 2, professor
Narrative interviews	Student-researchers from group 2, professor
Participant survey	Student-researchers from group 1 and group 2, professor
Collecting documents	Student-researchers from group 1 and 3, professor
Problem-centered interviews	Student-researchers from group 3, professor

Table 3: Researchers involved in data analysis

As a principle, each step in data analysis was conducted in various iterative circles: Always, the first step of data analysis was conducted by all student-researchers involved and the professor separately (e.g. coding 'first-level' codes individually). Then, student-researchers came together in groups and developed a common interpretation (e.g. a list of 'first-level' codes and related text passages), thereby iteratively refining the initial result of individual analysis. Finally, the codes of the student-researcher groups were compared to those of the professor and refined again. Involving multiple interpreters into the interpretation of qualitative data allows ensuring credibility of the data analysis (Flick, 2009; Patton, 2002). It helps clarifying the researchers' frames of references, reducing the influence of individual recognition patterns and increasing the interpretive validity (Lincoln and Guba, 1985).

5.2.1 Identifying emergent themes: Open coding of qualitative data
Qualitative data from the narrative and problem centric interviews, the survey, the open fields of the observation guidelines and the documents collected were organized in five different corpora of data. They were analysed separately but in a uniform procedure. As the overall aim of the qualitative analysis was to openly explore the effects of unconferencing and to identify mechanisms which brought these effects about, the interview material was not approached with predefined categories but instead analysed in a bottom-up approach which allowed for the emergence of themes from the material (Lieblich, Tuval-Mashiach & Zilber, 1998).

During analysis, researchers applied the iterative procedure described above and drew on the techniques for generating meaning as suggested by Miles and Huberman (1994). In a first step, all researchers involved in analysing a certain corpus of data noted natural or 'first-level' codes (ibid: 69). These codes allow summarizing data through labelling units of meaning. In the second step, explanatory 'pattern codes' were defined

(ibid:69). They are used for identifying emergent themes through grouping 'first-level' codes together. In a third step, codes were mapped and relations between them were noted and displayed as components in a network of themes (ibid: 70-71).

5.2.2 Reconstructing process patterns: Analysis of narratives

In addition to the open coding of the qualitative data described above, researchers run an analysis aimed at reconstructing the process patterns in the events described by the interviewees (Flick, 2009). In the first step, researchers isolated the narratives from the transcriptions of the narrative and problem centric interviews and eliminated all non-narrative passages. This step provided researchers with a *"purified narrative text"* (Schütze, 1983: 286). In a second step, we developed a structural description of the different parts of narratives. This description provided the basis for the third step, i.e. the analytic abstraction intended at elaborating the events' *"shaping in toto, i.e., the life historical sequence of experience-dominant processual structures"* (Schütze, 1983: 286). The process patterns constructed were in a final step compared and contrasted to each other for reconstructing the *"interrelation of factual processual courses"* (Schütze, 1983: 284).

5.2.3 Observing the gestalt of unconferencing effects: Analysis of quantitative data

For analysing quantitative data from the observation, researchers created an observation result sheet which displayed the information on how often predicted phenomena were observed by the student-researchers. As we were interested into the gestalt of the effects of unconferencing rather then into statistically significant cause-and-effect relations, we again used an exploratory approach.

Data were interpreted with respect to the first set of research questions (see section 3). Again, researchers followed the iterative cycles of constructing and validating interpretations described above for the analysis of qualitative data. They discussed whether the effects predefined in literature were visible during the unconference and how they looked like when they appeared in reality. The codes from the analysis of the qualitative (open) observations were used in a second step for identifying further effects and further characteristics of the effects predicted in literature.

5.2.4 Integration and validation of findings

The aim of the final step in data analysis was to combine and integrate findings from the analysis of the single data corpora into a common interpretation that would answer the research questions. After having finished the analysis of the separate data corpora, findings were integrated in two phases: During the first phase, the findings from the analyses of the data gathered with participatory observation, narrative interviews and participant survey and the documents collected until April 2009 were analysed by student-researchers of group 1, 2 and the professor in another iterative circle as described above. Findings from the second phase, i.e. the results of the analyses of data gathered with documents collected between April 2009 and April 2010 and the problem-centered interviews were analysed following the same procedure by the student-researchers of group 3 and the professor and then linked back to the findings of the first phase.

The data researchers collected and analysed represent different perspectives on the event (participants', organizers', institutional perspectives) and were gathered at different points in time. Integrating such rich data material necessitates a triangulation strategy. We followed the suggestions by Flick (2009) for linking findings and compared where they were convergent, contradictory or complementary (ibid: 449). Findings were therefore related to questions, and from their comparison, a holistic picture emerged. Especially, the integration of findings from the thematic part of the analysis (open coding of qualitative data and analysis of quantitative data) and from the sequential part (analysis of narratives) proved to be very insightful: Through linking thematic codes to the phases in the event process when they were mentioned by the interviewees or observed by the student-researchers, we were able to understand how the different effects of unconferencing were interrelated and brought about.

At the end of both phases, researchers performed "member checks" (Lincoln and Guba, 1985), i.e. sought to obtain the feedback of respondents to the interpretation of the researchers. Interpretations were presented by the professor to the event organizers as well as to several participants. Their comments helped to refine interpretations.

6 FINDINGS

This section outlines the findings of the case study. It describes the gestalt of the main effects of unconferencing identified from the data and links them to mechanisms which have brought these effects about.

6.1 Emergence of Project Ideas

During the event, participants developed more the 50 project ideas which were then merged into 17 project proposals. Participants wrote and talked in their answers to the survey and in the interviews a lot about how these project ideas emerged: They highlight that the *networking* which happened during the first part of the event was important for developing ideas. The networking exercises were praised by most interviewees for supporting them in getting to know people from other departments and disciplines, engaging into intensive dialogue with them, identifying participants with similar issues and ideas and building up project groups. Exemplarily, participants stated:

> *"It was easy, also people were easy. It was fascinating, merely also because one got to know people from totally other fields of study, with whom one would normally not have to do much." (interviewee 1, problem-centered interviews)*
>
> *"I was in the topic area of energy, it was great to see what different people hold as different perceptions of energy, it started with a wild brainstorming (…). On topic development: I was surprised how many themes were there and how many people had ideas; partly they went into the same direction, partly less. I was positively surprised how many good ideas came together in such a brainstorming in such a big group (…) One joined a group also through this interactive group development process, what was really great, one met a lot of people, build up, from my perspective, fast relationships to students to other students, interdisciplinary, got into contact with people who one otherwise certainly would not have meet." (interviewee 9, narrative interviews)*

Interviewees reported that that cooperation was topic driven and happened between participants with similar ideas: *"And this is why I brought in myself my own new idea at the*

end. And this was possible because also two three other groups had the same idea. This is why I merged with other people." (interviewee 5, narrative interviews).

The mechanism that was most mentioned as enabling the development of ideas was the *facilitation* of the first phase of the event in the large group. When reconstructing their experiences, interviewees highlighted that facilitators excellently structured and guided the open innovation process. Or, as participants put it:

"Generally, it was easy and ähm, what I liked a lot was the facilitation. People have been animated to think themselves, to bring in ideas. And also for making ideas explicit, because ähm this is a point that is to some extend a bit critical. One has to bring people to talk about ideas, not only to think for themselves and not to share these thoughts. And this was really easy, also because of the good humour in the group." (interviewee 6, narrative interviews).

Similarly, in the retrospective, one interviewee reports: *"I think such events are very good, because you are supported, so. One is guided and this does not happen when you are alone, then you can't do much." (interviewee 2, problem-centered interviews).*Participants underlined that facilitation enabled them to exchange ideas, to make points of view explicit, to bring in own ideas and to develop them further. One interviewee even states that *"(…) without the event this project would never have happened. It got the project up to speed, to discuss everything in advance. (…) Like this it certainly provided a structure that was very helpful." (interviewee 3, problem-centered interviews).*

The facilitation of the first phase of the event was strongly focused on breaking up existing group structures and creating new structural links in a power-free environment. Observations show that especially during the phases of networking and ideas market, existing group structures were dissolved and new groups emerged. Continuous efforts of facilitation to organize conversations in a way that everybody would stay connected with other people created a feeling of group belonging as reported by this participant:

"I very much liked the task where one had to find people for somebody else.(…) I have the feeling that this creates a certain group feeling. Because hmm you know you are not searching for yourself, but hmm for somebody else, and like this all at this

> *event belong together. And, and you know for sure that somebody searches for you.*
> *Like this you feel safe in the group." (interviewee 14, narrative interviews).*

The facilitators also made sure that even participants who were shy or not interested in talking to others could not elude elaborating topics during networking. For example, one less motivated participant reports that the *"networking happened automatically; people came and talked to me". (interviewee 19, narrative interviews).* Observation results support the findings from the qualitative data: The seven observers noted that they all together had topic-related conversations with 87 people of which they did not now 71 before. In addition, observers did not perceive a single exclusion of participants due to first level classifications (the clothes, the experience, the voice etc. of others) during the whole event.

Besides facilitation, the *atmosphere* that was created during the event was mentioned as important enabler of idea development in the interviews. It was described as open, creative and supporting idea sharing, as *"really cool open source atmosphere." (interviewee 20, narrative interviews),* or like this participant puts it: *"I was surprised when I arrived, in an unusual environment, very unusual environment that surely also fostered creativity in a certain way." (interviewee 9, narrative interviews).* People liked the large empty room for the interactive sessions, and they enjoyed the decoration. They also felt esteemed by the organizers and the service personnel, apparently an unusual experience for students which has been highlighted several times. For example, one student outlined:

> *"I arrived yesterday at one pm and the registration seemed very professional to me. It*
> *reminded me to conferences which I usually only observe from the hall, where these*
> *people in suits and ties participate. (…), and then we had dinner and it was very*
> *tasty, the cafeteria was nicely decorated. The service was excellent." (interviewee 4,*
> *narrative interviews)*

6.2 Learning

An important topic many participants talked about was that they learned a lot. The topic was triggered in the survey through a specific question; it however also emerged

during the interviews without an explicit question. One sub-topic was ‚*to learn from others*' like this interviewee outlines:

> „*(…) the issue was getting to know other people, this was really cool, how this was done, most of all, fist one had to meet somebody, here I met a really interesting person, of whom I profited a lot, and he then, luckily, selected very good people for me.*" *(interviewee 12, narrative interviews)*

Also in the answers to the survey, participants acknowledged that their major learning gains resulted from capitalizing on other peoples' expertise what enabled them to generate new ideas in the thematic area of CO2 reduction. Like in the quotation above, one third of the interviewees related learning effects to the different facilitation methods applied.

Apparently, *facilitation methods* stimulated individual and social learning at the same time. Several interviewees mentioned that they learned a lot about themselves through the comparison with others: *"I also got to know myself better, because one discusses with people and then one suddenly sees, the own position compared to that one of others."* *(interviewee 15, narrative interviews).*

One important mechanism which brought this insight about was that they had *to convince* others for being able to develop a common project vision. The following statement exemplifies this: *"I learned how much energy it costs and effort to start up a good project, and my position in the discussion is a bit more on the extreme side."* *(statement from the participant survey).* And another interviewee adds: *"And then the idea market. This was a tough thing. Because it had a lot of ideas, similar to my own. (…) This was a tough thing, because there also some people jumped off my project to other, similar projects."* *(interviewee 14, narrative interviews).* Observation results show that there was not one single project group where participants kept the initial project idea without modification. Instead, participants discussed different opinions and developed a common project vision which was different from the initial idea. This process was not limited to the first phase of the event but continued during the second phase in the teams. Interviewees report how the *project content and focus changed* when they got deeper into the work on the proposal:

"And there were issues which did not work out. It also brings disillusion concerning certain areas. And yes, maybe related a certain change happened. Maybe in the priority, fist the technical side was more talked about, but it is maybe not that important concerning this aspect. And later it went a bit more into what one would here maybe describe more as „general sustainability". That it somehow is a kind of awareness development somehow, this project. (interviewee 1, narrative interviews).

Generally, the *engagement* in event activities impacted what participants reflected upon and were able to learn. As we saw above, those who aimed at implementing their own ideas described the process of convincing other people to join their team as intensive and sometimes even exhausting. One third of the interviewees reflected their *role as idea owner* and reported learning points about own competences. Additionally, half of the participants who filled in the survey mentioned an improvement of their capabilities for working effectively in a team: *"I learned how to work in a team, how to present (and how one should not present), work efficient to get good results in a short time."* (statement from participant survey). Interviewees pointed out that working in a totally new team was a challenge they had to master but which they enjoyed:

"First, one has inputs and very much new content and than one is requested to sit down and zag zag (perform). And you work with people you don't know what is good because different ideas come together." (interviewee 19, narrative interviews)

Another mechanism that triggered engagement was the insight that the *courage* to go out on a limb was valued by others:

"(…) and this was a relatively big group (…) and then one saw who has the courage to step up in front of others and to say, let's do it like this or that, (…) And then the language (…) certain people did not speak English very well but I liked it and it was courageous that they contributed anyhow, they said they would speak English even if it was not the best. This was very cool. (…) and then I felt yes, you have to bring in the idea. You should say something. And suddenly I noticed that people do not think that this is stupid. And that was very motivating and nice." (interviewee 4, narrative interviews)

Accordingly, an *"increase in self-confidence"* was mentioned in the answers to the participant survey several times as learning.

Another issue participants learned about was *"how to motivate people in a creative manner" (statement from the participant survey)*. Most of them stated that they never participated in an unconference before, and that they had no clear idea about what would happen and how the event would be designed in detail. When telling what happened to them during the last 24 hours, interviewees talked about the first creative event phase in the large group much more than about the (second) proposal development phase in teams. They enjoyed experiencing a large group moderation process and even thought about applying unconferencing methods themselves:

> *"But the sharing of ideas, also how this was boosted, that one would exchange at best and so on, this I liked. And I also took notes what to keep in mind, what I can reuse from such events and what I personally liked." (interviewee 7, narrative interviews)*

6.3 High Quality Proposal Development

Within the 24 hours of the event, participants developed 17 project proposals. The project ideas ranged from the Eco-Paparazzo, an internet portal to pillory energy waste, to construction measures (e.g. implementation of heat exchangers, use of solar- and wind energy), technical tricks like a better switch-off of the standby modus or an improved printing system to behaviour change focused projects like "choose stairs – not lifts", "trainforplane" or "Eat less CO2". One highly innovative project proposed that an eco-friendly investment of pension funds with the potential to compensate the indirect CO_2 footprint of the institution about four times. Experts from the jury as well as later media announcements of the institution acknowledged that the number and quality of proposals was extraordinary high. All project proposals were classified as eligible for evaluation and as entailing realistic ideas for CO_2 reduction at the university (ETH Life Print, 2008; ETH Zurich/Brem, 2009).

Interviewees provide some insights how this high quality of proposals was brought about. Most participants outlined that their major motivation to engage in the event was to *impact the way the university deals with CO2*. Accordingly, they enjoyed *working on own ideas* and bringing them forward together with competent followers. Especially

people who came to an event with an idea which they wished to bring to life were keen to work on it:

> "I brought an already pre-defined idea. And this one I wished to go through with. I though I might here at this event make my idea more concrete and sustainable. And then then I would have a six pager, a proposal and can say: a proposal for the project is available. And this would be a first step. Because each PhD starts with a proposal. And this means eventually it will happen." (interviewee 14, narrative interviews)

Several interviewees report that they did not just come for a two day event but aimed at making their project happen afterwards. The opportunity to bring in and grow own ideas created a strong feeling of ownership for project proposals. This is also visible in how time was sensed: Participants who arrived at the event with a strong vision of an idea were very keen to proceed and work on the idea, whereas other interviewees mentioned that although the first interactive phase lasted four hours, they totally lost track of time:

> "And yes, then we took some time to get to know people, (…) and it was important to know what others are doing, their studies, what projects they imagine, and such things. For this, we had one hour of time or maybe a bit more, I don't know exactly anymore, time flies here." (interviewee 2, narrative interviews)

> "The networking. I had the feeling that this was a bit long (…) And in our case it was like that, with the group with which I came here, we already went through this process before the event. (…) but later to see the presentations of the project ideas, that was interesting." (interviewee 3, narrative interviews)

Interviewees also mentioned that they felt that what work on the project proposals was not just for fun but hard work. Beside strong interest into the subject, *competition* between the groups and the upcoming *project evaluation* were mentioned as mechanisms that made participants feel like that.

> "And this was really impressive, that the people really took this so serious and that they worked hard at this, this was really intensive work. And one could feel that it was important for them." (interviewee 7, narrative interviews)

> "Also I think it surely pushed us that we wished to create a good project, and beign better, or minimum as good as the others, to say it like that. We knew, that afterwards these projects would be presented and that there would be an evaluation,

and that, this competition, really pushed us." (interviewee 8, problem-centered interviews)

Another important mechanism that helped to ensure the quality of the proposals was the opportunity to talk to *experts* during the proposal development phase. Before dinner and after breakfast, experts from different areas such as environmental topics, marketing or finance were available. Participants used this opportunity extensively:

"And yes then there we had the opportunity to talk to subject matter experts which was really convenient because, in my group, we were only environmental engineers. (…) And like this we were able to verify whether it was kind of right what we had done." (interviewee 6, narrative interviews)

Similarly, the *proposal template* served as orientation for the work on the proposal like this participant outlines: *"We just looked up the issues in the proposal and tried to follow them. It is relatively systematically described there." (interviewee 1, narrative interviews).* Although appriciated by most of the participants for the structuring effect, two interviewees however blamed the proposal template for *"massively limiting what one was able to present"* (interviewee 10, narrative interviews).

A further important mechanism which was reported as enabler to good cooperation in the project groups was the *build up of working routines*. Several interviewees stated that they improved cooperation over time, for example that *"in the morning we worked much better then yesterday night"* (interviewee 4, narrative interviews). Findings from the observations additionally show that during the work in the project groups, roles in the groups emerged due to the expertise of people and task assignment happened rather by volunteering than by orders. Observers noted that participants actively listened to each other and presented even unfinished ideas. Misunderstandings were regularly perceived as such and discussed and criticism formulated in factual and constructive manner. Several participants reported problems that arose from different foci of team members:

"During the work on the project (…) one really saw the difference between students who simply focused on a detail and us who then had more the holistic perspective, the overall perspective of the project in focus (…) We simply talked to the other people

and stated again this is too much detail, we now have, really for handing in the proposal in two to three hours, you should not focus on details, but instead formulate an overall direction. And then it worked out again." (interviewee 10, problem-centered interviews).

Apart from developing routines, groups however *stayed flexible*. During the project proposal development phases, observers noted several changes in the roles of project team members. These role changes were not forced but happended self-motivated and followed the stepwise planing process in the groups:

"We had a relatively flexible planning process. So step by step thus, one after the other was looked at and further developed. Thus in this sense there was no planning, we just worked checked how it went ahead."(interviewee 5, problem-centered interviews)

The stepwise process was reported as adequate working routine but also as creating stress at the end of the proposal phase. Here again, groups proved being very flexible and reactive.

6.4 Project Implementation and Sustainability

At the end of the event, several interviewees as well as respondents to the survey wrote or talked about enthusiasm in their group to implement their proposal:

"We were 12 people (…) and looking at it now, in ten minutes the presentation starts and all are happy, feel that this is cool. All say hey, one has to implement this really and there is almost jealousy of who can conduct the project later. (...) I really hope that these projects will be implemented in reality. That the university board likes them and feels responsible – and above that provides funding." (interviewee 18, narrative interviews).

Most interviewees expressed pride in the results of their work, they feel that they *"really developed something what is worth being implemented."(statement from the participant survey).*

In the problem-centered interviews held 15 months *after the event*, interviewees talk about what happened after the conference to their project proposals. Similarly,

reports and newsletters by the university on the issue bring up the topic of sustainability of the investment made. All interviewees report that they were contacted 2 months after the event and offered support to implement their projects. Most of them felt that this break of two months was too long, and several interviewees searched themselves for support:

> *"So there was no direction indicated or something to lead us, and I searched on my own initiative for people who would support this project." (interviewee 5, problem-centered interviews)*

Interviewees report that it was difficult to keep team members at the project. In most projects, team members left because they had *"not enough time and not enough capacity" (interviewee 3, problem-centered interviews)*. However, after the break ECOWORKS strongly supported the projects. The university invested about 0.5 Million CHF for the build up and maintenance of the project idea platform and for supporting the implementation of project proposals generated at the unconference. 18 months after the event, seven projects are implemented and two others are still running.

In autumn 2010, ECOWORKS will organise a further unconference – and implement several changes based on what they learnt from the project: The university board will be involved more, but also professors from the autonomous departments to ensure support of project implementation *before* the new event. ECOWORKS negotiates with several chairs agreements for integrating further projects into curricula and providing students with ECTs points for their work. The willingness of the students to implement a project afterwards will be one criteria for the jury evaluation. Furthermore, the university board put 100,000 CHF out to tender for funding the implementation of the best projects.

7 DISCUSSION AND CONCLUSIONS

In our case study, we investigated whether and how unconferencing supported a large Swiss university in its organizational change towards environmental sustainability. Our research focused on studying the gestalt of effects of unconferencing, both

theoretically predicted and unpredicted, as well as the mechanisms which bring these effects about.

The first effect predicted in theory was that unconferencing supports *systems connectivity*, i.e. the *creation of structural links* (Luhmann, 1995) between participants from different organisational sub-systems (Wolf & Troxler, 2008). In our case study, we found that participants connected to those from other departments, engaged into intensive interdisciplinary dialogue, and cooperated with participants with similar ideas. The development of a shared understanding of the unconference topic led to a better connectivity and an increased fit of the change activities with existing organizational structures and decision making processes (Mcmillin & Dyball, 2009).

The process of creation of structural links was initiated by the networking exercises in the first phase. Guidance by facilitation was mentioned as important by most of the participants. From a theoretical point of view, the unconference served as an occasion for generating a cross-organizational communication process and related communication rules that differed from those which participants were used to from their organizational sub-systems (Baitsch & Heideloff, 1997). The guidance provided by the facilitation helped the participants to accept the new communication process as 'rule of the game' that should not be questioned. The structural links created at the event were sustained during the work in the project teams when working routines developed. Some of these links proved to be sustainable enough to evoke the creation of further structural links after the event when motivated students implemented their projects in the ETH departments.

The process of the creation and deepening of structural links happened, as far as we have been able to observe it, in a rather *power free environment*. Participants engaged in the different exercises of the first phase openly, and they developed a feeling of belonging to the large group instead of to the people with whom they arrived at the event. During the work in the project groups, we saw that roles and tasks were assigned due to expertise instead of status and that everybody's voice was esteemed. The feeling of being equal that facilitators tried to produce during the first phase was reproduced during the second phase by the participants. The unconference built on the principle of democratic dialogue (Ekman Philips & Huzzard, 2007), and this partially explains the above findings. Methods designed to *avoid rituals of power, status and*

hierarchy which support the identification of commonalities and differences help to develop a joint vision (Carlile, 2004; Hansmann et al., 2009).

The *atmosphere* is a topic unpredicted in theory. As participants felt esteemed and put into an atmosphere they described as cool, creative and open source, they were also motivated to open idea sharing. Mechanisms mentioned were the location, professional service and good food. This finding is important for organizers of participative idea creation events. Although it is well known that interior and decoration of a room are important for stimulating creativity (e.g. Owen, 1997), the issue of feeling esteemed by professional service was so far hardly discussed in literature.

All effects described above created the basis for stimulating *mutual learning* processes as predicted in theory (Wolf & Troxler, 2008). *Perspective taking*, i.e. putting oneself in the position of others and acting in relation to oneself (Mead, 1972), was described by the participants as learning from others' experience and happened through comparing the own thoughts to those of others, discussing them and integrating them into a common project vision. At the same time, active participation triggered reflection and *individual knowledge transformation* (Carlile, 2002; 445) in the sense of learning more about the own point of view and about the topic area. In theory, this is explained by the embeddedness of identity development of individuals into social contexts (Mead 1972; Goffman 1974). Again, facilitation was important to bring these effects about, and again participants stuck to the principles of open discussion, perspective taking and reflection during the project team work.

At the unconference we studied, participants developed within 24 hours 17 project proposals that realistically could be implemented for lowering CO2 emissions of the university. This suggests that unconferencing is a viable method for developing high quality project proposals in a relatively short period of time. The event furthermore created enthusiasm amongst participants to implement their projects. We found that to keep this enthusiasm up subsequently, support and guidance by university professors and internal support institutions is needed. While in our case this support initially was not fully in place, the participants still managed to implement more than half of the project ideas. Moreover, the organizers learned from this process and secured funding and support of the university board for a follow up unconference in November 2010. That the university is repeating the event with an unconference

format indicates that the responsible managers perceived unconferencing as an appropriate format to stimulate change processes and that the movement is sustainable.

What are the contributions of the present research for academics and practitioners? Scholars will certainly benefit from the systematic review and discussion of available event formats for facilitating the initiation of organizational change. One of the major contributions of this paper is then that we position unconferencing, a relatively new event format which was so far neglected in scientific discussions, in relation to others. By studying a recent unconference in depth, we furthermore add an empirical case to literature which allows studying the gestalt of the effects of unconferencing as well as the mechanisms which brought them about in depth. This allows concluding on the event formats' potential for facilitating the initiation of organizational change processes. Our findings show that in our case study, unconferencing achieved systems connectivity, enabled mutual learning and probably outperformed more traditional formats in terms of output on this occasion. It is probably plausible that the basic aspects and methodology of unconferencing are not confined to the topical domain and type of organization that were addressed in this case study. Certainly, unconferencing can equally be used for enhancing other organizational change processes that critically depend on systems connectivity and mutual learning.

The article raises the awareness of other universities and organizations of an event format they might wish to apply in their organizational change processes. The main conclusions which practitioners can draw from the present research concern the applicability of the unconferencing method for organizational change. The present investigation clearly indicates the mechanisms which have to be put in place for running an unconference effectively and sustaining the change process afterwards.

Yet further research is needed, particularly on a meta-level, to investigate the effects of unconferencing. This paper reports a single case study what limits the generalizability of the results beyond the event studied. Unconferencing needs therefore to be investigated across universities but also in a range of other domains and organizations. Likewise, the question needs to be addressed under which circumstances unconferencing might or indeed might not be the most promising approach to achieve

goals of organizational change, as compared to others. Furthermore, the influence of unconferencing as a method as compared to the effects of the actual skills of the facilitating teams merit attention.

A further limitation of this paper concerns the significance of the data gathered with the observation guidelines. Future studies should experiment with ways for observing an event like this without using observation guidelines that potentially limit perception of phenomena.

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ANNEX 1

A. Observation guideline for phases in the complete group

Phase in the complete group								
name of observer								
Atmosphere in the group								
						bad	rather bad	rather good	good
0 Are participants excluded because of first level generalizations (due to their appearance, their language, voice, clothes)								yes	no
1 Does each participant talk to everybody else?								yes	no
2 Is the contact between participants stimulated systematically?								yes	no
2.1 In case of yes, by which means?								
3 Are contacts between participants with different professional backgrounds established?						never	seldom	often	regularly
4 Do people leave existing groups?								yes	no
5 Do new groups emerge?								yes	no
6 Do participants engage actively?			a) Who						
					nobody	some	most	all
			b) What	ideas					
				opinions					
				expert knowledge					
				criticism					
			c) frequency		never	seldom	often	regularly
7 Do contacts between participants with different professional backgrounds emerge?							never	seldom	often
8 Are participants adressed with titles (Dr., Prof.)?								yes	no
Other notes								

B. Observation guideline for project phase

project phase

	Group participant number	professional background	nationality	gender	language	
name of observer	1					
	n					

Atmosphere in the group

	bad	rather bad	rather good	good

Power structrues

0 Are participants excluded because of first level generalizations (due to their appearance, their language, voice, clothes)			yes	no
1 How emerge group structures:				
1.1 Dominate participants becauseof their status instead of their expertise?			yes	no
1.2 How emerge group roles?	because of expertise			
	because of status (Prof., Dr. etc.)			
	other:			
2 How are tasks distributed?	because of expertise			
	because of expertise			
	other:			
3 Do participants dissociate themselfes from others (verbal or through their behaviour)?	never	seldom	often	regularly
4 Is own knowledge strongly empahzised?	never	seldom	often	regularly
5 How often do participants use killer phrases?	never	seldom	often	regularly
6 How often do participants interupt each other?	never	seldom	often	regularly
7 Do participants mention unfinished ideas?	never	seldom	often	regularly
8 What mechanisms are used for agreeing a group opinion?	discussions			
	votings			
	others			

Making perspectives explicit

9 Do participants engage actively?	a) Who				
		nobody	some	most	all
	b) What	ideas			
		opinions			
		expert knowledge			
		criticism			
	c) frequency	never	seldom	often	regularly
10 How do participants formulate criticism?		objective/ stick to facts			subjective judgements

Listening actively

11 What types of reactions follow statements?	verbal				
	gestures, mimic				
	actions				
		never	seldom	often	regularly
12 Do participants explicitly ask for furhter details?		never	seldom	often	regularly

Developing common perspectives

13 How do participants deal with different opinions?	discussions			
	votings			
	others			
14 How are ideas developed?	taking over the original idea			discussion of different inputs
15 Is there a common understanding of ideasr?			yes	no
15.1 In case of yes, how does this common understanding manifest itself?				
16 Are there a lot of misunderstandings?			yes	no
16.1 In case of yes, what happens?	They are ignored			
	They are dicussed			
	They are not perceived			
17 In case somebody leaves the group, what has been the reason?				

Self reflection

18 Do participants critically reflect own opinions and behaviour?	never	seldom	often	regularly
19 Do participants change their role over time?			yes	no

Other notes

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