# Knowledge Strategies in Organisations: A Case for the Barcamp Format

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**Abstract:** Barcamps are events for open knowledge exchange. They are generally open to everyone, irrespective of background or discipline, and request no attendance fee. Barcamps are structured by only a small set of common rules and invite participants to an interactive and interdisciplinary discourse on an equal footing. In contrast to scientific conferences, the program is decided by the participants themselves on-site. Barcamps are often called un-conferences or ad-hoc conferences. Since barcamps are typically attended by people in their spare time, their motivation to actively engage and benefit from participating is very high. This paper presents a case study conducted at the annual Barcamp Graz in Austria. Within the case study, two field studies (quantitative and qualitative) and a parallel participant observation were carried out between 2010 and 2014. In these investigations we elaborated on the differences of the barcamp to scientific conferences, inferred characteristics of barcamps for knowledge generation, sharing and transfer in organizations and propose three usages of barcamps in organizations: further education of employees, internal knowledge transfer and getting outside knowledge in. Barcamps can be used as further education for employees enabling not only knowledge sharing, generation and transfer via the participating employees, but also for informally promoting a company's competences. With respect to internal knowledge transfer, hierarchical boundaries can be temporarily broken by allowing informal and interactive discussion. This can lead to the elicitation of 'hidden' knowledge, knowledge transfer resulting in more efficient teamwork and interdepartmental cooperation. Finally, external stakeholders such as customers and partners can be included in this process to get outside knowledge in and identify customer needs, sketch first solutions and to start concrete projects. As a result of the case study, we hypothesise as a step towards further research that organisations can benefit from utilising this format as knowledge strategy.

**Keywords:** barcamp, knowledge transfer, social media, conference format

## 1. Introduction: Outcome vs non-outcome-oriented methods and the role of participant orientation

Knowledge has become one of the most precious resources. Next to land, labour and capital, data as a prerequisite for knowledge are considered to be the fourth factor of production (Stewart 1998). Since knowledge is complex, difficult to establish and to imitate, it is regarded a determining factor for competitive advantage and corporate performance. Companies are challenged not only to preserve their existing knowledge base, but to constantly enlarge it in order to enhance their competitive advantage (Grant, 1996). Thereby, the role of knowledge management is to enhance productivity and create value for the whole organisation (Darroch and McNaughton, 2002; Ruggles, 1997). Open innovation, knowledge exchange and application are seen as bidirectional and interactive processes opening up the company's boundaries (Chesbrough, 2006), hence represent an essential prerequisite for knowledge transfer.

However, this exchange of external and internal ideas and knowledge does not happen automatically. Strategic support and appropriate methods and tools are needed. Literature suggests employing methods like innovation workshops, idea contests and toolkits, targeted dialogues, and the integration of the Web community in different contexts (e.g. Huizingh, 2011; Jashapara, 2011; Arnold and Barth, 2012). In contrast to organisations' one-sided means for knowledge acquisition, i.e. focusing on formal training of employees (Gaines, 2004), and for promotion, i.e. focusing on trade shows and fairs, all of the mentioned bidirectional methods have in common that they are participant-oriented and increase the involvement and interaction of the different

stakeholders. These methods, however, are often designed and meant to be used in settings in which the desired outcome is clear and defined. For instance, working on a new product by integrating lead users. This outcome orientation may lead to downsides such as limiting the creative potential or restricting innovative ideas.

In an organisational setting, one possibility to overcome these downsides by focusing on participant orientation and involvement could be the use of the non-outcome-oriented barcamp format. A barcamp is a conference, which aims at knowledge exchange. Barcamps provide a platform to share expertise, to learn, to get feedback and to discuss. Contribution to barcamps is not based on a submission system, and there is no fixed program prior to the event. Instead, the empty raster of session slots is filled with ad-hoc proposals in an open process based on the participants' interests, as everybody is invited to suggest a session. This process includes an efficient self-introduction using three terms ('*tags*') in the beginning of each day, which reflect the participants' interests, expectations and topics they want to discuss or hear about. Due to this lack of structure (Boule, 2011), barcamps are often referred to as *ad-hoc conferences* or *un-conferences*. Additionally, there is no clear distinction between speakers and audience. In such a setting, knowledge and information is exchanged in an open, voluntary, self-motivated, informal and democratic way of communication encouraging every participant to contribute actively to the event. Usually there is no admission fee as they are mostly self-organised. The initiators of a barcamp only need to care for a suitable space and Internet access, essential to facilitate communication between the participants and with the outside world. There have been a considerable number of barcamp events in the last few years all over the world, many indexed on *barcamp.org*.

This informal, non-outcome-oriented and flexible format might make barcamps particularly suitable to be used in different settings and for various purposes especially in industries experiencing rapidly changing requirements and contexts. Additionally, barcamps are not only oriented towards the participants' interests (Budd et al., 2015), but focus on their involvement. To infer advantages of such characteristics for organisations, we set out a case study to compare two methods for knowledge exchange: barcamps, as non-outcome-oriented and ad-hoc method on the one hand and other, highly pre-structured and outcome-oriented methods on the other hand. A good example of this latter method are various types of conference formats, e.g. trade shows, professional conferences, seminars or scientific conferences. Thereof, scientific conferences probably represent the most elaborated form of a pre-structured and outcome-oriented method, which is why we chose them as a main format to compare it with barcamps. Scientific conferences are outcome-oriented in the sense that they aim at enhancement of reputation of presenters and that the participants know beforehand which knowledge they want to acquire. The term *scientific conference* in this paper is used to refer to scientific events where the program emerges from a peer-reviewed paper submission process. This comparison of the two methods scoring differently on the dimensions of outcome orientation, participant orientation and participant involvement enabled us to elaborate on the advantages of barcamps and to draw inferences on their usefulness for their application in organisational contexts. Thus, the case study served to infer hypotheses about the usage of the barcamp format as knowledge strategy in organisations.

The remainder of the paper is structured as follows: The case study will be presented in Section 2 including the Barcamp Graz as object of the study, method descriptions and their results. In Section 3, the value for barcamps in organisations is hypothesized. These hypotheses will finally be discussed in the light of knowledge strategies in Section 4.

## 2. Case study: Comparing barcamps to scientific conferences

The goal of the case study was to investigate on the differences between scientific conferences and barcamps as (un-)conferences. To investigate on the differences and to shed light on the advantages of the barcamp format and their benefits in organisational contexts, we conducted an exploratory case study at the Barcamp Graz (BCG), using a mixed methods approach (e.g. Flick et al. 2012) relying on the three different methods: a qualitative analysis, a quantitative analysis and five years of participatory observation. While the qualitative analysis served the need to get a detailed view of some participants, the quantitative analysis picked up the discovered concepts in an analysis of the general view of a greater sample of participants. Both perspectives are complemented by the authors' view in the participant observation. The complete study was administered to generate hypotheses as the starting point of a research enquiry.

## 2.1 Object of study

The outcomes of this paper are based on studies conducted at the BCG (see *barcamp-graz.at*; see Figure 1) in Graz, Austria, between 2010 and 2014. It is an annual event that draws a crowd of 200-300 participants. The exact number of participants is not known, since registration is not mandatory.

**Figure 1:** Barcamp Graz introductory round

While many barcamps have a single track, BCG consists of a combination of sub-camps that deal with specific topical areas such as *politCamp* (Internet policies, participation, etc.) or *wissensCamp* (knowledge management, technologies, etc.). As the mix of sub-camps varies annually, participants have a variety of topics to choose from and to engage in). This attracts a multidisciplinary audience and constitutes the BCG as a forum for interdisciplinary knowledge exchange. The different topical areas alongside the analysed barcamps and their number of attendees are listed in Table 1.

**Table 1:** Description of the Barcamp Graz (BCG) in the years of study

| Year | Subcamps | Attendees |
|---|---|---|
| 2010 | designCamp, politCamp, iCamp, wissensCamp | 204 |
| 2011 | designCamp, politCamp, iCamp, wissensCamp | 195 |
| 2012 | designCamp, politCamp, iCamp, wissensCamp, geoCamp | 206 |
| 2013 | designCamp, politCamp, iCamp, wissensCamp, physioCamp, startCamp, werk.stadt | 325 |
| 2014 | designCamp, politCamp, appDevCamp (iCamp), wissensCamp, startCamp | 295 |

The changing combination of different camps and respective topics makes the BCG comparable to scientific conferences with parallel tracks. However, it also represents a prototypical barcamp as it is strictly non-commercial and adheres to the eight rules of barcamp (Dennerlein et al., 2013) justifying its selection as a representative.

## 2.2 Qualitative study

### *2.2.1 Method*

The qualitative study was administered after the Barcamp Graz 2012. The corresponding interviewees were selectively sampled based on the answers given in a descriptive questionnaire (e.g. age, gender and motivation), which was handed out during the event (n=99). The final sample consisted out of 10 participants, aging from 20 to 61, representing barcamp novices to veterans with past participation ranging from 1 to 30 times, including 4 female participants and comprising of diverse backgrounds (e.g. law, software development, journalism, pedagogy and science). Regarding the analysis of the interviews, we chose qualitative content analysis (Mayring 2014). Amongst other questions, the participants were asked to compare the barcamp concept to scientific conferences and to list differences, advantages and disadvantages.

### *2.2.2 Results*

One of these differences is *active engagement* in the event. Although explicitly mentioned only by two participants, it appears implicitly in a variety of answers, e.g. one person stated that every single participant can present information. Also the motivational aspect to do so is emphasised: '*The motivation to engage in it yourself is considerably higher*' than in classic formats.

The *level of professionalism, expertise or quality* of the barcamp is raised as further difference. Here, one participant stated that it might appear slightly unprofessional at first sight, but immediately qualified his remark by saying that this does not appear unpleasant in the context of a barcamp. One participant noted that the

discussions on some specific topics did not go deep enough, saying that this is maybe because of him being an expert in these fields. Among experts, the knowledge depth is experienced higher in scientific conferences. Another participant is comparing scientific conferences to barcamps in this regard: while the former usually have a peer review system for selecting contributions, barcamps do not. This, however, for him does not guarantee quality, as he has experienced some of the worst presentations of his life at scientific conferences.

The comparison between the formats is seen as difficult, also due to the fact that the nature of content differs: content at barcamps is more target group oriented and of practical relevance, since it is selected by the people attending the event themselves. Hence, the knowledge exchanged at barcamps covers a wide range of topics and is described as more relevant for practical application. The selection criteria in scientific conferences on the contrary is mainly the novelty and quality of the submitted papers, while a barcamp allows also to discuss a fresh idea to get input from others. Besides, the two formats seem to have a lot in common: presenting your own work, the wish to get input, wish for discussion and the desire to present oneself in a good light are noted. Promoting oneself is mentioned to be stronger in conferences than on barcamps. This is in line with the remark that presenting at conferences is worth more for one's curriculum vitae.

When people talk about barcamps, the *community aspect* is often highlighted positively. It was mentioned in the interviews that it is easy to become part of the community. The barcamp community is experienced as one that tries to help each other, which supports the whole barcamp idea as such. The participants highlighted the solidarity aspects giving less relevance to competition aspects, which is associated more with scientific conferences.

Participants were also asked to name advantages and disadvantage of barcamps. The fact that there is no pre-established schedule, that you do not know what to expect as a participant, is seen as a disadvantage by one interviewee. Knowing the presenters beforehand is seen as a solution for that problem. For several participants the exact same aspects, such as the possibility for surprises, the dependence on the event´s quality on the motivation of the participants, can be regarded both as advantages and disadvantages. Also other characteristics of barcamps like openness, interdisciplinarity and the possibility to discuss are seen under an ambivalent perspective: on the one hand, this opens specialised topics for a broader public; on the other hand, this is also experienced as a lack of depth in the discussions. As advantageous aspects, less pressure for the speakers is mentioned and to get to know people in a *'relaxing, low threshold atmosphere*'. As disadvantages, the lack of possibilities to publish your work, the lacking acceptance (in a scientific context), and the difficulty to determine the quality (of the contributions) are mentioned.

## 2.3 Quantitative study

### *2.3.1 Method*

The second study was conducted during BCG 2013, where we again handed out a descriptive questionnaire to the participants. The sample (n=86) aged from 9 to 58 years (n=79; $n_{Median}$=29 ; Range=49) and consisted of about 25% females ($n_{female}$= 21; $n_{male}$=65). The questionnaire contained one open question addressing the most important differences of barcamps in comparison to scientific conferences. First, these answers were qualitatively analysed to elicit conceptual differences taking into account the results of the preceding qualitative study and then counted out quantitatively (Mayring, 2014).

### *2.3.2 Results*

Except one statement saying there is no obvious difference between barcamps and scientific conferences and another one being indifferent, there were 84 statements seeing differences.

Five conceptual categories were developed out of the responses of the questionnaire. All of the respective statements regarding differences were in favour of barcamps. See Table 2 for the extracted categories and their importance reflected in the respective amount of statements.

**Table 2:** Results of the quantitative content analysis

| *Extracted categories* | *Number of occurrences* |
|---|---|
| format | 55 |
| more active participation and nature of discussion | 21 |

| *Extracted categories* | *Number of occurrences* |
|---|---|
| participants | 10 |
| general complimentary statements | 7 |
| costs | 6 |

The most important category 'format' describes statements such as informal character, no predefined program, self-organisation, general climate and free knowledge transfer. 'More active participation and nature of discussion', by contrast, refers to e.g. interactivity and no lecture-style presentations. Good social climate and multi-professionalism are examples for the category 'participants'. The category 'general complimentary statements' includes statements such as enthusiasm and fun. Finally, the category 'costs' points towards free attendance.

## 2.4 Participant observation

### *2.4.1 Method*

The authors participated in several barcamps, in the roles of regular participants as well as initiators. They had the opportunity to observe the various stages from preparation to the actual event and analyse various documents (like event websites and blog posts) from which general assumptions about the barcamp culture are derived.

The observation concerning the differences between scientific conferences and barcamps are triggered by conceptual differences elicited in our studies on the one hand, and differences which are based on subjective observations as participants of both, a number of barcamps as well as scientific conferences, on the other hand. The personal observations by each of the authors were written down individually and critically reflected using a triangulation process within the group. From these observations we were able to derive a number of general principles for each of the formats, which capture their main characteristics. We are aware of the fact that this includes an idealisation of both of the instances (barcamps and scientific conferences) to some extent and argue for a heuristic approach.

### *2.4.2 Results*

Barcamp participants do not have a clear vision of the expected outcome of the event. They have, however, the goal to share knowledge. The barcamp format facilitates this goal via rules such as ‘no tourists’ (no passive participation) as compared to long talks and short question rounds at scientific conferences. It can be very successful if the participants fully live the concept.

Formal vs. informal character

The atmosphere and communication culture at barcamps is in general very informal. Participants in open discussion sessions can interrupt a presentation on any occasion. It is even accepted to switch between parallel sessions in case participants feel they cannot contribute (‘*law of two feet*’). Given that, the relation between quality and attendance of a session is mostly self-regulating. If participants feel more competent in the field presented, they might also bring in important points and do not have to wait until the discussion is formally opened.

The list of formal requirements of barcamps is much shorter in comparison to scientific conferences. In fact, registering for the event on site is usually enough to be able to take part. This means that there is no paper-submission process, although most barcamps offer the possibility to propose session topics beforehand in an online platform. Barcamps also act much more target group oriented, e.g. by turning this process around. It is possible to propose a session by asking a certain question to be answered by present experts. An aspect that is handled quite strictly is the maximum duration of sessions, since time management is crucial for handling parallel sessions.

Relation between participants

Less weight is given on formal positions than on real personal interest by just introducing oneself using three tags. This does not only prevent hierarchical roles limiting knowledge transfer, but makes it possible in a very

efficient manner to discover other participants with related concerns. Therefore, the use of tags represents a simple but powerful networking tool compared to some conferences' participants list that includes names and affiliations only.

Additionally, most sessions at conferences have an ex-cathedra character including formal speaker role and limited time for discussion. The equal flooring of participants, on the contrary, triggers more open discussion which we regard as more likely to lead to innovative ideas. Apart from the session raster, barcamps do not have a fixed format for every session, but interactive sessions of any type may be suggested. At barcamps there is no hierarchy with respect to the participants' status: e.g. between initiators and participants of a session. Participants of barcamps generally perceive themselves as equal. This enables more discussion and allows more creative ideas to be developed in comparison to a formal speaker format. A key aspect seems to be that people perceive equality in discussion as motivating for engagement.

Motivation to participate

Conferences are usually attended for professional reasons, while the motivation to attend barcamps in one's spare time (at weekends) is usually private, even though interest in a topic might correspond to a participant's professional or research interest. The interdisciplinary audience at barcamps generally welcomes everyone who is motivated to contribute, which decreases the barrier to actively engage. Besides the appreciation of the format of a barcamp, the community and the topic of a barcamp are the strongest drivers of participation (Dennerlein et al., 2013).

Documentation of knowledge and results

Since a barcamp does not require any materials comparable to research papers in scientific conferences to be submitted in advance, participants are encouraged to share the results collaboratively via social media. While conferences publish official proceedings, new knowledge, notes, links, hints to further literature etc. are typically shared via the Web at barcamps. This means that results of collaborative documentation are freely available, while scientific publications are typically subject to a fee. In this self-organising format nobody has the assigned role to document, therefore, some knowledge might not be documented and is only available to the participants. However, the openness of the format facilitates new knowledge to be shared freely.

Effectiveness of knowledge transfer

In many companies, the coffee kitchen is the most effective place for knowledge transfer because of the informal atmosphere, the free will to participate in discussion, and no cost being involved. The barcamp idea exploits this effect to the fullest, making its sessions very informal. In terms of its topical scope, barcamps can be very open or restricted to a certain area (Lawson, 2010). In comparison to scientific conferences, a barcamp can be characterised by active knowledge generation instead of mere passive consumption. Thus, the knowledge is more deeply elaborated, which we hypothesise to lead to more effective knowledge transfer.

## 3. Hypotheses: Potentials of the barcamp format for organisations

The differences between barcamps and scientific conferences lead us to infer three hypothesised ways of leveraging the barcamp format in organisational contexts:

- sending the employees to a barcamp for further education
- organise a barcamp within the own organisation to
- *facilitate the internal knowledge transfer*
- *get outside knowledge in, e.g. from customers or partners*

In the following subsections, these hypotheses will be argued based on advantages of the non-outcome-oriented barcamp format analysed in the case study.

### 3.1 Further education of employees

In addition to other instruments, employees could be sent to barcamps. If the goal is to get new, unexpected and serendipitous insights, participating in barcamps is a good choice, since the format leaves more space for

surprising synergies between the different involved disciplines. Another reason might lie in the (informal) knowledge generation oriented character and the ubiquitous opportunities for discussion. In scientific conferences, discussions play a minor role and are only enabled at the end of presentations or in short coffee breaks, in most cases. Scientific conferences, mainly build upon the idea of spreading the predefined peer-reviewed knowledge. They should be drawn upon, if the goal of the further education is deepening the knowledge in one specific area.

Even if the depth of knowledge is greater at scientific conferences, the usefulness of the knowledge in terms of applicability is usually higher at barcamps. This characteristic also increases the chances for a representation of companies' practical skills. However, the culture of a barcamp is not in favour of promotional presentations. Sharing knowledge can in fact be the best promoter of the knowledge, skills and capabilities of a company and their employees, potentially leading to even better results than a standard promotional presentation. In addition, barcamps support more the networking aspect, which makes it even more attractive for companies.

## 3.2 Barcamps as beneficial method inside organisations

### *3.2.1 Barcamps for internal knowledge transfer*

Barcamps provide a rather informal, relaxing and low threshold atmosphere that could temporarily tear down hierarchical barriers to knowledge transfer when applied within the company. This enables free knowledge transfer between e.g. a team leader and employees, but also between members of different teams. The identification of hidden and implicit 'sticky' knowledge (Szulanski, 2003) and growth of mutual understanding would be two potential outcomes building the basis for more effective and efficient future collaboration. To achieve this, it is important not to include the job roles on the name badges as approaching each other on an equal footing is a key to facilitate collaborative learning. By being similar to the coffee kitchen atmosphere, first results can be achieved without a lot of formal requirements (laid-back character) in a fun and enthusiastic setting increasing the motivation of the participants.

Active engagement and interactivity represent central characteristics of the barcamp concept that are not only enabled via the open session format, but are also required via the *rules of barcamp*. Instead of the common passing on of knowledge or information in e.g. meetings, barcamps trigger knowledge generation leading to new insights. Being non-outcome-oriented contributes to the serendipity, which might be hampered by stating a defined outcome. This engaging and interactive character increases the chances of activating internal knowledge independent of hierarchical levels in organisations.

### *3.2.2 Barcamps for getting outside knowledge in*

Most barcamps have a topical frame (e.g. tourism, start-ups etc.) and this is one of the main attractors for interested people to attend irrespective of their discipline (Dennerlein et al., 2013). A wisely chosen topic increases the chance to get in touch with the needed partners or customers and engage in a free knowledge transfer. This could for example mean to propose the knowledge and skills of one's own organisation and get in return the potential partners' complementary skills or needs stated. However, the stated topic of an un-conference just frames the potential discussions and does not constrain the participating audience from bringing in additional suggestions.

The open format of the session organisation in un-conferences facilitates the involvement of partners. They can directly ask questions or state their problems and needs, which may increase their motivation. This could lead to an efficient requirement elicitation or uncomplicated spotting of current market needs, for example. By contrast, relying on usual means such as promotional presentations would consume at least half of the available meeting time already instead of directly approaching the specific needs.

Open documentation of results acquired alongside and after a barcamp in social media includes the chance to promote one's own organisation and raise interest in groups far beyond the actual participants. This could increase the amount of possible future customers or interested project partners even more. Yet, the easy and cheap access to shared and generated knowledge via the documentation at a barcamp can also represent a downside with respect to the intellectual property issues and might need to get limited in organisational contexts.

Finally, the social aspect of barcamps might help to improve the organisation's climate and establish a good relationship to partners and new customers.

## 4. Discussion and conclusion: Barcamps as knowledge strategy

We conducted a case study at the Barcamp Graz to find out about differences to scientific conferences and the advantages of the non-outcome-oriented method. Apart from effective knowledge transfer, it can be argued that the format has advantages regarding the generation of new (practical) knowledge. Barcamps are often a breeding ground for new ideas to emerge that can be followed up in project ideas or even start-ups: i.e. creative and surprising outcomes are not a rare exception, but rather a known and expected side effect. This characteristic is also evidenced in the non-outcome-oriented organisational method of Randomized Coffee Trials, which led to '*a lot of great work related outcomes, some unexpected*' (Hazeldine, 2015). It is also the 'hidden' and implicit knowledge which could be stimulated that way. Barcamps might also benefit from the open, interdisciplinary and networking oriented approach in the sense that new synergies such as finding cooperation partners for a new project are likely to occur.

We hypothesise as a step towards further research that organisations can benefit by utilising this format. First, hierarchical boundaries can be temporarily broken down by allowing informal and interactive discussion on an equal flooring (and thus enable better *intergenerational knowledge transfer*). This can effect in the elicitation of hidden knowledge residing within the employees and effective knowledge transfer between different departments leading to greater mutual understanding, more efficient teamwork and department overarching cooperation (*knowledge transfer* and *knowledge generation*). Second, external stakeholders can be included in this process to identify customer needs via interactive in-depth discussion (*knowledge transfer*), sketch first solutions and to start concrete projects (*knowledge generation*). Finally, barcamps can be an addition to further education in organisations enabling not only knowledge sharing, generation and transfer via the participating employees, but also promotion.

In conclusion, the barcamp format is hypothesised to be useful to generate, share and transfer knowledge in the light of organisational knowledge strategies, and hence increase the competitive advantage of an organisation. These use cases have to be implemented and tested in organisations in future research. The respective outcomes should be related to the generation of *communities of practice*, which might be capable of boosting the proposed ways of applying the barcamp format in organisations.

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