

## **REAL ACTIVE LEARNING IN BIG NUMBERS: TRAINING 23,000 EMPLOYEES AT SCANDINAVIAN AIRLINES (SAS)**

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### **Abstract**

Research in the field of new learning methods has previously shown the pedagogical value of participants being active and doing hands-on exercises, as well as having a close teacher interaction. From a pedagogical point of view, case-based learning methods are often preferred. However, in practice, case-based methods are often difficult to scale up. Therefore, these methods are not often applied when many participants are involved in a learning environment.

This article explores the possibility of creating “real active learning” with large numbers of participants. A case where 23,000 employees at SAS, Scandinavian Airlines, participated in a large-scale learning event is analyzed.

The paper concludes that well-prepared learning processes can support “real active learning” with large numbers of participants. The case shows that the difficulty of scaling up, a problem often assumed to be an obstacle for the use of case-based learning, can be overcome.

**KEYWORDS:** active learning, learning processes, cost, case study

### **INTRODUCTION**

#### **TOOLS KNOWN VERSUS TOOLS USED**

A commonly presented picture of “real active learning” is a situation where the students are deeply involved and where they are the active actors themselves [Popil, 2011; Nash, 2008; Best & Thomas, 2007]. Most often it means working hands-on with a topic. It also implies a close interaction between a supervisor and/or other colleagues and participants [Ellis et al, 2008; de Geus, 2002].

By tradition, this method is used in training of handicraft skills, in the field of architecture, or for doctors, businessmen, engineers, or lawyers [Korkmaz, 2012; Göransson, Hammarén, & Ennals, 2006]. In the area of management training this the method is sometimes termed problem-based learning, or the “Harvard-Business-School case-study method” [Shiey Lyu, & Cheng, 2011; Mintzberg, 2005].

Research has previously shown that from a pedagogical standpoint, case-based learning is often a very fruitful method for the development of knowledge. If learning, instead of teaching, is the focus of the discussion, the preferences for this kind of method are high. It has also been shown that participants themselves often prefer this method [Prat, 2012; Yadav, Shaver, & Meckl, 2010]. This method of teaching is, however, often considered a costly and time-consuming way of learning. Therefore, other models are often suggested [Zhang et al, 2004]. Distance learning, as well as different forms of E-learning, has for instance been discussed in this perspective for a longer time [Dale & Pymm, 2009; Welsh et al, 2003; Taylor, 2002].

In contrast to this model of “real active learning” is the traditional “lecture,” where, instead, the instructor is the main active actor. The topic is presented by the instructor and discussed in front of the students - most often in a large classroom or grand lecture hall. Thereby, the topic is internalized through an assumed mental process occurring within a student’s mind and handled by him-/herself internally. From a pedagogical standpoint, lecturing is, and has for a very long time, been a widely debated method of learning in the area of management training [Knight & Wood, 2005]. Even so, lecturing is a traditional way of teaching and has existed as one of the main methods in business education for many years! it is still the primary method for large-scale teaching [Young et al, 2009; Biggs, 2003]. Suggesting that an instructor should stop giving lectures and begin using these kinds of learning methods instead could easily be interpreted as a very radical suggestion, even impacting the core of the occupation of being a teacher [Dyson, 2008; Ruhl & Suritsky, 2006]. With a lecture-focused method, there are interesting advantages to be considered when case-study-teaching is suggested. It is a fairly cost-efficient method for the instructors involved, and the numbers of students/participants possible to handle on each occasion can be very big. Thus, there are strong rationales for giving traditional lectures for certain areas/topics.

In reality, much training actually blends these two methods. Theoretical lectures are often complemented by hands-on practical work and vice versa. Blending makes use of the fact that different people have different ways of learning [Goldfinch & Huges, 2007; Marriot & Marriot, 2003; Mantyla, 2001]. Consequently, these two models do not necessarily have to stand in conflict with each other.

## MANAGEMENT TRAINING OF TODAY

Within the field of business management over time and with different intensity, there has been an ongoing debate between (and within) universities concerning the relevance of business schools and their close connection to certain learning methods. During the last ten years the debates have increased [Pfeffer, Pfeffer & Fong, 2002; Starkey et al, 2004; Chia & Holt, 2008]. The Harvard Case tradition is sometimes blamed for not teaching what many academics claim to be sound management theory. It has also been claimed to be giving a “too clinical” picture of management practice [Hay 2006; Shugan, 2006]. It has been argued that it causes students to assume that real world management problems can be boiled down to a five- to ten-page-long condensed description of a management dilemma - a so-called decision-based case. It is said that a problem with these managers in real life is that they walk around “as if” there was a case to be solved [Bennis, 2005; Mintzberg, 2005].

A literature review by Tripathy [2008] shows that several business issues are also difficult to handle in case-study teaching. Three problems raised are: (a). defining problems, as such, rather than solving them, is one of the most difficult tasks in management - yet case study training often focuses on the solutions to problems already defined from the beginning; (b). implementing decisions made rather than making decisions is often far more difficult in practice than analyzing a situation; and (c) the issue of handling the uncertainty of real life that always exists in a situation is not always well captured in a condensed case description. This tells that even though case-study teaching often are considered as good it is a method that have drawbacks compared to work-practice.

The theoretical lecturing tradition of teaching, on the other hand, is sometimes blamed for not capturing the attention of the students, as well as being too abstract [Bligh, 2000; Burgoyne & Mumford, 2001; Young et al, 2009]. Students may have read or heard about management. They may also have considered it and perhaps even discussed it--but they have not necessarily learned management. They take part in a continuously deepening theoretical progress, becoming more and more specialized, but they do not get help to see more of a big picture as they would in case-based learning [Christensen & Carlile, 2009].

From a pedagogical standpoint, a major difference between these two models is which one of the actors involved is placed in the center of the learning process--the student or the teacher? Often, without even discussing it, the teacher becomes the starting point for development of a training program. One might thereby claim that teaching is being practiced instead of learning. It might even be claimed that instructors utilize this method because they are so eager to spread all the knowledge they have – but forget what students learn and/or are able to learn.

## **SCALING-UP: TIME AND COST, A CONSTANTLY OCCURRING CHALLENGE**

When instructors accept the drawbacks embedded in the lecturing model, they often move over to hands-on and problem-based training, even though the transition might be complicated [Spronken-Smith, & Harland T, 2009]. However, it does not solve all the problems embedded in learning because scarce resources will emerge as a problem. Case-based teaching is often assumed to be a very costly and time-consuming method [Rowntree, 1992; Gibbs & Gosper, 2006].

Cost might also be a reason why “real active learning” is not considered, even though the instructor’s perception might be that active learning would be preferable from a pedagogical point of view. Professors may continue traditional lecturing because they neither can neither afford “active real learning” nor have time for it. Because of the cost-advantage of lecturing, as well as the drive to cut the cost of publicly-funded teaching, it may presently also be a method that is increasing in use at several universities globally. This, in particular, can reasonably be assumed to affect management education. This might also actually be the case, even though financial crises have created a heated debate on the value of management training carried out at business schools during the past several years [Podolny, 2009, *The Economist* 11 Sept, 24 (Sept); 2009].

## **INDUSTRY ORGANIZED MANAGEMENT TRAINING – PLACES FOR NEW WAYS OF THINKING**

The problems of creating change within industry are and have been, at least for about the past two decades, widely discussed in the field of change management [Armenakis & Bedeian, 1999; Heckscher et al, 2003; Walker et al, 2007]. Schein [1992], as well as Pfeffer [1994] for example, blame top management for ignoring the importance of the culture of an organization. Embedded knowledge and traditions concerning how everything works create a culture that is difficult to change [Pettigrew & Whipp, 1991]. Resistance to change can be enormous, but the need to learn new skills is often great. In the perspective of change management, learning is a key tool that can be used for supporting change [Schwartz, 1991; Senge, 1996; Ford, 1999, Chakravorti, 2003]. In line with this, Senior [2002] makes the point that a culture which encourages learning is actually necessary to support the desired changes in an organization. In this context, it should be noticed that management terms like “the learning organization” have become well used in industry during the past decades [Huber, 1991; Nonaka & Takeuchi, 1994]. Over this period, there has been an increased interest in learning as a key element in change management within industry [Senge, 1999; Kotter, 2002]. It can thus be assumed that university management training has good reasons to look into how learning is handled within industry – and, in particular, when there are large numbers of participants involved. Teaching does not actually have to be fundamentally different from change management.

## **OUTLINE**

In this study, the possibility of creating “real active learning” over a fairly short period with very large numbers of participants and a small number of instructors will be explored. A case will be analyzed in which 23,000 participants/students at the Scandinavian airline company, SAS, participated in active real learning events. In many ways SAS did use a method with many influences taken from the “Harvard Business Case-tradition”.

The article includes five sections. First, a literature review of learning is made in order to develop a theoretical framework. Secondly, the intended learning at SAS and the company situation will be presented. Then, the learning event will be described. Next, the learning event will be discussed and evaluated in comparison with the models of learning presented earlier. Finally, conclusions are suggested concerning how “active real learning” can be achieved with large numbers of participants/students.

## MODELS OF LEARNING

It is not surprising that the research field of learning has not arrived at a consensual conclusion as to how a learning process occurs [Meltzoff et al, 2009]. Since the field is influenced by research carried out in such differing areas as philosophy, cognitive science, psychology, organisational research, management science, neuroscience, and pedagogy, consensus would probably be asking too much. Nevertheless, there are ideas and themes that are often proposed when learning processes are discussed in several of these research traditions. Some of these ideas and themes will be raised here.

Motivation is often claimed to be extremely important in relationship to learning. From the point of view of organizational theory, for example Tichy [2002] and Kotter [2000] note the need for urgency when for making organizational change where learning is needed. It is reasonable to assume that the same factors are important for individual learning since, for instance, Csikszentmihalyi [2003] puts forward the concept of flow” as a feeling (an ideal mental state of motivation) when intense learning appears.

From another point of direction, Gärdenfors [2000; 2009] claims that humans have been blessed with brains that complete fractional patterns to increase the chances of survival. The brain simulates and creates patterns based on information given to it, and that is the way humans learn. This is often demonstrated in the literature of cognitive science by showing a picture of an incomplete symbol, while asking what the picture shows. This understanding is also utilized in rhetoric, as well as in advertising where we can see its practical use on an everyday basis; Johannesson [1998] gives several examples of this. However, the point that Gärdenfors makes is that [and contrary to what is often assumed] the weaker the signal given to the brain, the easier it is for the brain to create its perceptions. From a learning perspective, this means the less information the better – as long as the information given captures the essential elements [Norman, 1993].

An important part in the development of learning processes is thereby to actually decrease the amount of information and to give participants the time needed for personal processing of the information. This necessary processing time is often not given to students. Instead, instructors hurry on to the next session, assuming that the needed processing time can be shortened.

Another important part of a learning process involves drawing conclusions and applying the knowledge gained [Eccles & Nohira 1992]. This is something that participants in learning are often assumed to do entirely by themselves. It may even be the case that the instructor draws no clear conclusions but leaves it up to students to find the final answers to the questions raised and then apply the new knowledge gained. However, either explicitly or implicitly, the instructor’s opinion on what kinds of conclusions are to be drawn may also be visible in the process. There are situations where teachers have no clear stakes in this--as well as situations where clear stakes occur.

In some cases, the former situation is deliberately chosen. A good example of this is in PhD training where students themselves are gradually expected to develop an independence of their own with regard to the topic they are studying [Rugh & Petre, 2004; Phillips & Pugh, 2005]. In other cases, however, the latter situation is chosen. This can often be seen in teaching basic management skills, such as in calculating on-cost – something that often follows manuals, routines and established procedures. This is also visible in industry when fundamental changes occur. Participants have a need to understand for themselves *why* change is needed, but at the same time, it is not always up to them to question the change as such. Top management has often already decided upon the kind of change that is supposed to happen, at least on an aggregated level [Senge, 1996; Ingvar, 2001].

The line between creating over-controlled teaching versus too open teaching (with regard to the conclusions to be drawn) is, of course, not very clear in practice. It is also an issue discussed in research on change management. It may sometimes be claimed that industry change is far too controlled from the top down, and not enough room is given for employees to reflect on the changes occurring [Parish et al, 2008; Jabri et al, 2008]. At the same time, it is claimed that there could easily be an “internal earthquake” within the organization if too much room is given for discussing and reflecting on what is going on [Reger et al, 1994]. Herein lies a delicate management issue--balancing these two extremes. Ingvar [2001] goes further in this discussion, claiming that if the top management of a company fails to give its employees a structural picture of the future of the company, employees will lose their sense of the company’s *raison d’être*. He therefore claims that there is a strong obligation for top management to create learning that is not too open in the conclusions it permits. This is also an opinion on learning that has been supported previously by others such as Starkey [1996], who claims that the role of management is actually to provide

employees with a conceptual framework that helps them to make sense of the information that they are given at work. Thereby, it can be assumed that there are situations where, indeed, too much open-ended learning exists.

### **THE FRAMEWORK FOR THE LEARNING EVENT AT SAS**

During the late 1990s, the Scandinavian Airline Company, SAS, found itself in a situation where fundamental changes were taking place in the airline business. Following the development in the USA, the European Commission had deregulated the previously regulated airline market, and, as a result, competition had increased [Viator, 1994; Peltzman & Clifford, 2000]. Low-cost airlines, like Ryanair, had established themselves on the home markets of SAS and increased their market share [Creaton, 2005; Doganis, 2006; Gitell 2005]. This had also led to a breaking up of the former clearly distinct market segments: business passengers and leisure passengers. Fifteen years prior, to this time, SAS had prospered in the business passenger segment, having even received the global award "Airline of the Year" for its good business passenger service. Now, all that was threatened [Lagergren, 2004; Ahtlia, 2005].

In this situation, the top-management team of SAS decided to change several of the fundamentals in the way SAS did business. Issues to be changed were, for instance, taking away the division into business and leisure passenger segments. All passengers in the future would be seated, as well as treated, more equally than before. In order to support that change, the internal hierarchy within a flight would also be changed, manifested by the change of uniforms used by the cabin crew and pilots. This was very radical, since the hierarchy between pilots and cabin crew had never been questioned before in the history of the company. This hierarchy had a very long tradition within the company – as in most airline companies [Doganis, 2006].

Top management also started to focus on productivity issues in a different way than before, compared to the previous service-concept focus. Several internal projects were set up in order to cut cost. Everything from cargo handling to scheduling of flights, ICT operations and cabin-crew salaries were investigated from the point of view of cutting cost. Considerable numbers of efficiency projects were set up. Overall it can be claimed that top management went into a period of re-inventing SAS and its basic business philosophy.

During this process, it became clear to the top management team that it was essential for such fundamental changes in the company to be handled as smoothly as possible; otherwise, it was assumed that there would be an internal backlash within the company, meaning employees would not accept what was happening. It was therefore decided that a carefully designed learning process was needed to help the employees understand for themselves why and what kind of, changes were needed. It was also decided that all personnel within the company, then 23,000 employees, had to be involved in the process. It was not believed to be efficient enough to only train managers within the company in the massive cultural shift intended.

### **THE LEARNING PROCESS<sup>1</sup>**

The major part of the learning process employed was a one-day event, a gathering of 1,000 employees simultaneously in a hangar. This event was held 23 times, leading to all the 23,000 employees participating over a period of one year. The gathering took place at three of the company's major airport hubs: Stockholm Arlanda Airport, Oslo Fornebu Airport, and Copenhagen Airport.

When participants entered the event, the CEO of the company gave a short speech, presenting the year's financial result and giving highlights of what had happened during the past year. He also gave a speech on the changes occurring in the market and discussed changes needed within the company in the future. Finally, he invited all the participants to enter the hall in the hangar and physically discover the new style of SAS. A newly repainted airplane manifested this with cabin crew on board, dressed in the new uniform. Before entering the hangar, all the participants had to pass through this area, see Figure 1.

**FIGURE 1**  
**Participants at the Event**



After that session, employees were seated in groups of 4 – 5 people working jointly with different, previously developed, group assignments. This was all done in a hangar with all 1,000 employees seated in one area. The assignments focused on rediscovering the history of SAS and how changes in the surrounding world had forced the company into previous change—with successful results. The assignments were also about discovering different projects that had been, or would be, launched within the company and how they were related to the overall new business idea. Several assignments also included open questions to the participants asking for suggestions on changes to be made internally. The assignments used during the event had been carefully developed by an internal project group and supporting consultants and had been tested on several pilot groups in order to see if the material worked as intended.

All the answers to the included open questions were collected and compiled by a special project group and given back to the top-management team afterwards. Several of the suggestions led to new internal projects. The material from the event was also subsequently summarized and put up on the company intranet in order to give participants feedback from their participation.

This preparation phase was, of course, a consuming lead-time process. However, the calculated cost per participant spread out over the year did not become excessive. Compared to running the same kind of process delivered at a traditional conference center, the cost for the event was even considered very cheap by top-management – not to mention the saving of the total lead-time that the event created in comparison with a conference-type solution.

During the sessions at the event, the top-management team was walking around in the hangar talking to participants and discussing different issues – in this sense, they were acting as facilitators. The CEO of the company also framed each assignment on the stage, giving his personal comments on how different questions could be answered. During these sessions, participants were also given the possibility of asking questions to the CEO using microphones.

Very few facilitators participated, particularly compared to the number of participants as a whole. The main learning occurred in a combination of the assignments given, the material used, and the participation in each group. The facilitator group, employees from corporate HR, mainly worked to help with practical issues, as well as collecting and handing out material to be used. The material was well developed and checked by the pilot study, so that participants could mainly work things out fairly well by themselves by reading the instructions. To mark the end of the event, a major party was given for all the participants. It became the substitute for the traditional annual company top-management meeting.

In order to support the change intended, there were also several follow-ups after this event. When, for instance, personnel collected the new uniforms several weeks later, they had to complete a small assignment first in order to get the uniform. Since cabin crew members seldom meet at the same time physically, this was a cleverly used opportunity for further learning. The assignment was about remembering the message that was spread during the major event. It also included a questionnaire that gave employees the opportunity to comment on new changes occurring within the company.

The event was also supported by video material. The same materials [with facilitator guides included] were also given to managers to bring home to their own organizations after the event. This gave them the possibility of running similar events, but on a smaller scale, for employees who were unable to participate. In this way, a cascading model was established.

The evaluations of the event carried out by the HR department clearly showed that employees preferred it and had understood why SAS had to reinvent itself. However, that is not to say that the employees liked the content of the message from the top-management team.

## DISCUSSION

For developing the SAS event, the method used was influenced by the “learning spiral” described in Mellander [1993]. Mellander, who ran the main consulting firm that developed the material for the event, also participated in the internal SAS project team. The learning spiral states that successful communication starts with motivation and then moves on to information, processing, conclusion, and action. As can be noted, this model follows in many ways the fundamental basic ideas/themes occurring when research on learning is studied. In that respect, the learning spiral is nothing more than a practical interpretation of research in the field.

The process of developing the program can, however, be described as following the learning spiral in reverse. This raises the following questions: What kind of actions is the program supposed to trigger? What conclusions do the participants need to reach in order to take these actions? Which mental process(es) would lead to these conclusions? What information is needed to start such a mental process? Finally, what motivation could be used to begin the process? It can be claimed that the learning event clearly followed important claims made by modern research on pedagogy. Examples of these were the opening speech given by the CEO in order to create motivation, the information he gave, and certainly the idea of giving participants lead time to process that message while walking through and seeing the new airline style for themselves. Similar processes were set up for each working assignments that participants were given.

The case also shows how the development of structured learning points can appear. Clearly all the material used was well prepared far in advance. Pictures, the color scheme, and even the dinner, along with the music and videos used, were developed with the clear idea of an intended real life learning process – ending with the clear understanding of SAS changing. A constant question occurring during the whole event was, “What do you see as the main conclusion of this exercise?” In most cases, the answer was that major change was needed for SAS, and, in several cases, clear examples of what that meant were also shown physically. In many cases, suggestions on changes were raised by the participants themselves.

## CONCLUSIONS

In this paper, it has been shown that it is possible to create “real active learning” with very large numbers of participants without too costly a process--and one that can run over a fairly short period of time. Furthermore, it can be conducted with small numbers of instructors.

A case where 23,000 “students” at the Scandinavian airline company SAS participated in “active real learning” has been explored in terms of its content and efficiency, as well as how it correlated to the theoretical development of modern models of learning. Thus, in well-prepared learning situations and with the use of modern models of learning, instructors can create active learning situations and still manage large numbers of participants. It can be seen that “active real learning” is actually possible to manage without many types of drawbacks - concerning scaling-up, numbers of instructors that need to be involved, and excessive costs that can often be entailed in using case-based learning methods.

## END NOTES

1. The learning process is mentioned in the Annual Reports of SAS for 1999 and 2000 under the headline of the project “SAS 2000+”.

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