Conditions of implementation of employee-driven innovation

Søren Voxted, voxted@sdu.dk

Abstract: This paper discusses the opportunities and barriers for the transfer of employees’ ideas to implementation of new solutions in employee-driven innovation. The theoretical approach to the paper is the existing research on transfer not only in innovation, but also the transfer of learning, knowledge and technology. Based on the results from an action research project aimed at training and involving shop-floor employees in employee-driven innovation, the paper identifies five factors that have been crucial to the transfer process from employees’ ideas to new solutions in production. The paper discusses five factors for transfer compared with existing literature and knowledge on employee-driven innovation.

Keywords: employee-driven innovation, transfer, action research, employee’s participation, adult education, blue-collar workers
The aim of the paper is to look at implementation of employee-driven innovation in manufacturing production. The context is employee-driven innovations among skilled and unskilled employees in a middle-sized manufacturing company in the machinery industry. The research question is to identify what conditions, frameworks and processes contribute to transfer of employee-driven innovations from idea to implementation. The paper contributes to theoretical discussions on the transfer of innovation from employees' ideas for implementation in production, and it unfolds knowledge of relevance to practitioners (consultants, HR staff etc.) who deals with employee-driven innovation. The paper lists a number of factors that had a significant influence on employees’ participation in employee-driven innovation in the case company. These factors are identified through an action research project based on an adult education programme designed to train the employees to participate in employee-driven innovation. As part of the adult education programme employees were to identify problems and develop ideas and projects, aimed at improving their workplace. To follow up the training programme, the company and the employees continued the process of implementation of the projects. Data behind the five factors presented in the paper were created from experience of the adult education programme and further work with the employees’ projects.

The theoretical framework of the paper is ‘transfer’. Transfer is a central concept in research into technology (Leonard & Van Long, 2015; Maxwell & Lévesque, 2011), knowledge (Chang et al., 2012; Paulin & Suneson, 2012), adult education and workplace learning (Brinkerhoff & Apking, 2001; Merriam & Leahy, 2005) and innovation (Caputo et al., 2002; Kirk & Pollard, 2002). In the paper, ‘transfer’ is a framework to illustrate and unfold how employees’ ideas are transformed into new solutions in organisations. In this paper, transfer is understood in terms of frames and processes having major influences on implementation of employee ideas into new innovative solutions. As a
consequence, the paper defines employee-driven innovation beyond creation of ideas to also encompass employees’ involvement in implementation of innovations (Høyrup, 2010; Kesting & Ulhøi, 2010; Rocha, 2010; Smith et al., 2012). The literature study is based on a search in the “Business Source Completed” database. Articles were identified using the keywords “employee-driven innovation” and “transfer”. This search identified 300 titles. Abstracts were used to select relevant contributions for the literature study.

The results presented in the paper are primary based on an action research approach (Cox, 2012; Heller, 2004; Paulin et al., 2012). The project had a dual purpose to train the employee’s in participation in employee-driven innovation, and to create knowledge about skilled and unskilled employee’s participation in innovations. The primary purpose of the course was to address the company’s organizational development needs, but the company and the production manager allowed access to the process for collecting data for research.

The core activity of the project was a course over three working days. There was approximately three weeks between each day of the course. In addition, the employees work with innovative suggestions and plans they had identified on the course between the working days, and the project, included different follow up activities in connection with the employee’s proposals. For that reason, data was not only collected during the three days of training, but also through interviews and document studies before the process, between the course days, and after the course was finished and the ideas started to be implemented in the company.

The findings of the paper unfold five factors derived from the action research process. The five factors are aggregated and deployed from data from the three working days, from research
interviews with employees and managers, and from document studies. The five factors were identified because they were particularly decisive for the employees’ participation in innovation and for transfer from employees’ ideas to innovative solutions in the organisations. The five factors are:

1) The need for a clear vision for employee-driven innovations in organisations.

2) Employee-driven innovation needs management support.

3) There is a need for formal organisation of employee-driven-innovation.

4) There is a need for writing and documentation in the dissemination of employee-driven innovation.

5) Organisations need to accept an unequal participation among employee’s in employee-driven innovation.

In connection with the findings the paper discusses and explores the five factors. The five factors are explored in comparison with the current research present in the literature review in the paper. It should be emphasised that the results obtained in the case study are consistent with the research into transfer and employee-driven innovation. But the findings from the action research project are further expounded and provide new details in comparison with the contributions referred in the literature review. The results of the paper will therefore complement current research.

The impact of the five factors in transfer of employee-driven innovation will be explored at the end of the paper as a summary and conclusion.

**Literature study**

Schumpeter’s original definition of innovation as novelty that creates economic value’ (Schumpeter, 1978 [1934]) has changed over time in direction of diversity in perspectives and
topics. Originally, innovation was a term associated with radical changes, which mainly occurred in manufacturing and transport industries and were carried out by a small number of dedicated actors. The picture has changed dramatically in recent decades. Currently innovation research presents a distinction between radical and incremental innovations, taking into account the fact that innovations do not necessarily entail the introduction of brand new solutions. The ‘new’ can be a novelty in the specific organisation or to a given market (e.g. Nelson & Winter, 1982; Foray & Lundvall, 1996; Lundvall, 2002; Van de Ven et al., 2008). Actors in innovation processes are no longer found only among entrepreneurs and staff members of R&D departments. Research reveals how customers, users and blue collar workers contributes to innovation (e.g. von Hippel, 2005 & 2007; Høyrup, 2010; Kanter, 1984; Nordlund et al., 2011; Stälbröst & Bergvall-Kårebom, 2011).

One of the new perspectives on innovation, which is receiving growing attention in both research and practice, is ‘employee-driven innovation. The concept of ‘employee-driven innovation’ refers to the fact employees in production and administrative functions contribute actively and systematically to change processes alongside their ordinary job functions (Høyrup, 2010; Kesting & Ulhøi, 2010; Kristensen, 2013; Rocha, 2010; Smith et al., 2012). The increasing interest and attention that employee-driven innovation is receiving is due to the fact that employees at the shop-floor level have experience and knowledge from their everyday working live that makes them crucial as contributors to organisational and technological change, efficiency and new solutions (Axtell et al., 2000; Ellström, 2001; Høyrup, 2010). The term ‘employee-driven innovation’ is relatively new, but the perspective is well known under other designations, e.g. shop-floor innovation’ (Axtell et al., 2000), exploitative innovation (Santangelo & Pini, 2011) and especially from theories of intrapreneurship and corporate entrepreneurship (e.g. Antoncic & Antoncic & Hisrich, 2003; Kanter, 1984; Pinchot, 1986; Sharma & Chrisman, 2007).
A central issue in research on employee-driven innovation and shop-floor employees’ participation in innovations is how the employees’ knowledge and ideas can be made visible and can be implemented to create improvements in the organisation. A result of the literature study is that employees’ possess the creative force to generate ideas for improvement, but they are not allowed to implement their ideas (Brinkerhoff & Apking, 2001; Chang et al., 2012; Ellström, 2001; Kesting & Ulhøi, 2010). This is the core issue in the transfer problem.

Transfer is a concept referring to how a process (e.g. innovation or learning) or a resource (e.g. knowledge or technology) is transferred and has an effect from one context to another. A broad and therefore also somewhat ambiguous definition is drawn from Detterman (1993:4): *the degree to which behaviour will be repeated in a new situation*. A later definition by Argote and Ingram (2000:151) represent a more accurate identification of knowledge transfer: *the process through which one unit (e.g., group, department, or division) is affected by the experience of another.*

Transfer is a concept in research in technology (Leonard & Van Long, 2015; Maxwell & Lévesque, 2011), knowledge (Chang et al., 2012; Maurer et al., 2011; Paulin & Suneson, 2012), learning and education (Brinkerhoff, 2001; Broad, 1997; Fuller & Unwin, 2011; Merriam & Leahy, 2005) and innovation (Caputo et al., 2002; Kirk & Pollard, 2002; Schwartz et al., 2005). The literature study includes results from all of these research fields, and not only transfers in innovation. The first reason for this is that the transfer concept includes some meta-perspectives, which are transverse in the various fields of research. Although the above definition by Argote and Ingram refers to knowledge transfer, it is able to capture the transfer of innovation. The other reason is that a number of contributions transcend and integrate the various subject areas. For example, contributions from
Evans & Waite (2010), Høyrup (2010) and Elström (2001) identify a link between transfer in learning and employee-driven innovation. This may also be referred to as correlations between knowledge transfer and technology. This is one of the most important issues in innovation research (e.g. Gilbert & Cordey-Hayes, 1996; Kirk & Pollard, 2002; Leonard & Van Long, 2014; Lundvall, 2002; Maxwell & Lévesque, 2011).

A further distinction within transfer is the distinction between transfer across organisations e.g. between companies and knowledge institutions (e.g. Evans et al., 2011; Lundvall, 2002; Leonard & Van Long, 2015) and transfer within organisations (e.g. Cummings & Teng, 2003; Cairns, 1011; Jones, 1997; Maurer et al., 2011). In the paper I focus on contributions that deal with transfer within organisations.

The core of the concept of transfer, assumed in this paper is the kind of conditions and terms which respectively promotes and supports the implementation of employees’ ideas and suggestions or conversely, which create barriers to implementation. One factor in a large number of academic contributions is the organisational framework. This factor refers in particular to the importance of work organisation that supports employee-driven innovation (Axtell et al., 2000; Høyrup, 2010; Kesting & Ulhøi, 2010; Khazanchi et al., 2007; Kristensen, 2013; Schumann, 1998). The division of labour, technology, work tasks and production flow are determinative of whether employees have the time and opportunity to contribute to innovation. This is particularly crucial for the shop-floor employees’ opportunities for participation in employee-driven innovation. A central theme in IR (Industrial Relations) theory is work organisation in industrial production, where a tayloristically inspired form of work organisation is compared with new forms of work organisation which give employees the ability to influence their own work, including participation in employee-driven
innovation (Kern & Schumann, 1986; Schumann, 1998; Smith, 2006; Thompson & McHugh, 2009). In relation to this discussion Smith, Ulhøi and Kesting (2012) mention employee autonomy as one of four key antecedents of employee-driven innovation. An organisational factor mentioned in some papers is channels and opportunities for internal communication between management and the operational staff (Proctor & Doukakis, 2003; Rocha, 2010; Shadur et al., 1999). For small and medium-sized enterprises, the proximity between the management and the employees may be an advantage for strengthening internal communication within the organisation (e.g. Andreassi, 2003; Lee et al., 2010; Roalsen, 2014).

Resources are another factor, which is appearing from several academic contributions. Knowledge is a resource that is often discussed explicitly in papers about transfer (Chang et al., 2012; Gilbert & Cordey-Hayes, 1996; Maurer et al., 2011; Paulin & Suneson, 2012). Another resource is management (Brinkenhoff & Apking, 2001; Jones, 1997; Høyrup, 2009; Kesting & Ulhøi, 2010; Rasmus, 2001; Santangelo & Pini, 2011; Shadur et al., 1999). The point is that management not only has indirectly influenced on transfer by facilitating employees’ participation, highlighting strategic and operational objectives, and establishing the organisational conditions. Management may also take a more direct role through direct interaction with the staff concerning professional solutions to support employee-driven innovation. Another resource presented in a number of papers and books is external support from universities, research and development centres, vocational schools, business consultants etc. This is obviously a key resource in the case of transfer between organisations, but some contributions show how actors from outside the organisation can support the enterprise’s internal processes (e.g. Hastings et al., 1997; Lakes, 2011; Lundvall, 2002; Maxwell & Lévesque, 2011; Merriam & Leahy, 2005). Conversely, there are only few papers dealing with the fact that employee-driven innovation, which requires time for activities and implementation,
requires financial resources. I assume this absence is due to it being a truism that implementation depends on time and financial resources too. However, I would mention papers which argue that there is often more pressure regarding time and economy in development in the case of SMEs in comparison to larger units (e.g. Andreassi, 2003; Angle del Brio, 2003; Rosenbusch et al., 2011).

The individual actors, in this case the employees, are obviously also decisive for transfer of employee-driven innovation and transfer in general. A number of papers point out that employees’ conditions, knowledge and motivation for participation in innovation vary, leading to an unequal participation among employees even in the same unit or team (e.g. Axtell et al., 2000; Brinkerhoff & Apking, 2001; Eraut, 2004; Evans et al., 2006; Maurer et al., 2011).

A final factor is organisational culture. Several contributions highlight the fact that the culture in an organisation is essential for transfer (e.g. Brandi & Hasse, 2012; Ismail, 2005; Kanter, 1984; Khazanchi, S. et al., 2007; Klein & Sorra, 1996; Lee et al., 2010). It can of course be argued that the artefacts, norms, values and basic assumptions in an organisation are embedded in the other three factors - the culture reflected in each employee’s work behaviour and motivation for participation in employee-driven innovation, the managerial style in an organisation, conditions for decision-making etc. Culture is, however, also an independent factor that reflects the symbolic order in an organisation (Schultz, 1994), by either supporting or creating barriers to transfer. A number of contributions emphasises that the national culture can be crucial for employees’ participation in innovation (Lok & Crawford, 2004; Poutsma et al., 2003). However, it is important to note that factors than national characteristics are decisive for the culture within an organisation e.g. the size of the company, the industry it is part of, and the employees’ educational background.
Each of the four factors I present in this literature study is very broad and includes several aspects – indeed; more aspects than I have covered in this review. The four categories are therefore meta-categories, which are capable of capturing the findings from the action research project behind this paper. The literature study thus constitutes a theoretical and conceptual framework within which I discuss my findings. Another important aspect is that all four factors interact with each other in practice. As an example, the organisational conditions contribute to learning and motivation among employees (Kesting & Ulhøi, 2010; Merriam & Leahy, 2005; Santangelo & Pini, 2011; Schwartz et al., 2005; Smith et al., 2012). But optimal organisational conditions are not necessarily synonymous with motivated employees.

Methods

The results presented in this paper were obtained from a training program for the shop-floor employees in Bramidan, a medium-sized Danish manufacturing company that produces machinery for waste management. The aim of the training programme was to involve the shop-floor employees in developing new solutions to improve production flow. This was established under the heading ‘employee-driven innovation’. The purpose of choosing ‘employee-driven innovation’ was to establish an open approach to development, which would give the most optimal conditions for the employees’ creative expression. Management approaches as TQM and Lean production also allows for participation, but not with the same freedom to create new solutions as employee-driven innovation. There was also an expectation from the management, that the training programme would create a higher level of motivation and commitment if the employees’ were involved directly both in the creations of new ideas and in the implementation of their own proposals. The training programme was conducted over three days, scheduled as single days two to three weeks apart. The participants were 13 operators from the production units in the company, the company’s Production
Manager and a HR consultant who subsequently served as coordinator for the implementation of the projects created by the employees during the training programme.

The purpose of the training programme was to introduce employee-driven innovation, and it taught the participants tools and methods for implementing their innovative ideas. During the training programme the employees’ developed specific projects for improvement at the company, including action plans for implementation of the projects. The link between training and the company projects aimed to create transfer between learning and the everyday working life (Brinkenhoff & Apking, 2001; Evans & Waite, 2010; Merriam & Leahy, 2005). The aim of the five projects was:

1) Strengthen production planning. The objectives are minor errors and adjustments.
2) Better subcontractor quality control.
3) Strengthen the internal customer supplier relationship.
4) Develop a programme for training new employees.
5) Establish a technical task force that contribute to development and implementation of technical issues in the production.

My role in the training programme was teacher and facilitator. I also had a minor role in the subsequent work to implement the employees’ projects. Alongside teaching and supporting, I collected (qualitative) data for research, which made the research behind the paper an action research project (Cox, 2012; Heller, 2004; Kristensen & Bloch-Poulsen, 2010; Reason & Bradbury (ed.), 2008: Paulin, 2012; Stringer, 2014).

A researcher simultaneously functioning as researcher and consultant or instructor means that action research is more a framework for knowledge production than a method for collecting data.
That is both a strength and a weakness of this method (Coughlan & Coughlan, 2002; McNiff and Whitehead, 2002; Stringer, 2014). The strength of this method is that it combines action in practice and collection of (scientific) knowledge. The weakness is that it is difficult in practice to separate the two aims. A distinction in action research discussed by Heller (2004) is the primary purpose of action research. Heller distinguishes between Research Action (RA) where research is the primary purpose, and Action Research (AR) as an activity with another primary purpose, but with opportunities to simultaneously collect data for research. In this dichotomy, this project is an Action Research project, which means there are no hypotheses to guide the process. The research questions follow an inductive approach where I observe participants learning and their involvement in employee-driven innovation.

The research strategy used to identify the five factors is a single case study (Bryman & Bell, 1010; Yin, 2013), which, through analysis of the data, identified factors that were crucial to the transfer of employees’ ideas on to implementation in the production unit.

During the project, before, during and after the training sessions, I recorded data by continually making notes. Other data sources were the five projects, and papers in preparation for the projects. Finally, a further data source was the dialogue with the Production Manager, the HR consultant and the shop-floor employees. This dialogue (as well as formal research interviews) not only yielded data. The dialogue contributed to analysis and to assessing the results. In conventional research, the researcher monopolises the interpretation of the findings, even though the participants typically have much more knowledge about the specific context. However, action research (research action) provides unique opportunities to involve the participants in interpretation and valuation of data (Heller, 2004).
Besides data collection in the action learning process, the study included some other data sources. The first contributions were semi-structured interviews, a method primarily chosen for the purpose of uncovering the views and interpretations of employees and management to prepare the action learning process (Kvale, 2008; King, 2004). After the training programme has been conducted, there were follow-up interviews on how the process was progressing. Those interviews were more loosely structured than the interviews conducted before the training programme.

Another important contribution to the case studies was observational studies carried out on the shop floor. Through these observational studies, I had the opportunity of observing the every-day activities of the employees, which in itself constitutes data of relevance to the training sessions. The observations also constituted input to questions asked in the semi-structured interviews (Brannan & Oultram, 2012; Waddington, 2004).

Findings and discussions
Through the action research project, five factors were identified which decisively, but differently, contributes to establishing transfer of employee-driven innovation. Initially, the findings are presented for the five factors briefly, and only as points of impact. Subsequently, it is discussed how data collected from observations in the action research process, documents (primarily the five projects) and interviews have contributed to creating and supporting transfer of the employees’ suggestions for innovation through to implementation of solutions in production.
The need for a clear vision for employee-driven innovations in organisations

Findings:

To provide direction and continuity in the course in cooperation with the production manager of Bramidan, a common vision was created for the action research process: “Better production flow”. The aim of the introduction of employee-driven innovation by the production manager was to counter problems like bottlenecks in the production flow, lack of information, the need for a better planning process, mistakes in deliveries of components etc. He mentioned in an interview (conversation) before the action research project that these were not major problems, but he saw opportunities to create a more optimal production flow if they could succeed in eliminating some of these minor problems. The production manager said he had experiences from a previous managerial job of staff having suggestions that could contribute to better solutions in the production. Nevertheless, it was assumed that there was a clear and visible vision to give the employees’ ideas direction. Therefore the five projects formulated in the action research process, included clarification of how their projects contributed to fulfilling the vision of “better production flow”. The vision was also included in the on-going discussions in the course.

Discussion:

Inspired by John Kotter’s 8-step process for leading change (Kotter, 1997) and Peter Senge’s five disciplines for a Learning Organisation (Senge, 1990), we introduced the participants to a vision of employee-driven innovation in the training programme. The alternative was to present participants with clear objectives and conditions for ideas for improvements, but we preferred an open process, which gives the participants opportunities to create new and different ideas. The aim of the vision was to signal that the employees had a high degree of autonomy to create their own ideas. This proved appropriate in this training programme. In organisational changes, including employee-
driven innovation, based on clearly defined and narrow objectives, the vision and the objectives will almost be identical. This changes when it is difficult to identify exact problems, if there are many concurrent problems and opportunities, and if there are several suggestions for solutions. Under such circumstances employee-driven innovation becomes an obvious method both to identify problems and to find solutions, and create new ideas. Ellström (2001) highlights the fact that a purpose in changes processes in organisations is often unclear and must be reviewed constantly in the impact of actions in practice. He concludes that: *Clear goals are sometimes possible to formulate only in retrospect* (Ellström, 2001:427).

The idea of presenting a vision instead of clear and narrow objectives at the beginning of the training programme was precisely to get new and surprising ideas from the employees. In the development of the projects, participants were asked to be as accurate as possible in terms of objectives and plans, while the production manager and I used the common vision as an impetus to ask and discuss how participants’ projects contribute to improving the production flow. This approach led to the participants, during the discussions, sometimes asking colleagues behind other projects how their project contributed to the common vision. The common vision became a lighthouse for the direction and the intention to create new solutions, and was therefore an element contributing to employee-driven innovation.

**Employee-driven innovation needs management support**

**Findings:**

The production manager was central in the planning process for the course he was a very active participant in the three days of the action research process, and he involved himself in the follow-up activities and implementation in all five projects. He was also an active
participant in one of the five projects created during the three days: the project aimed at establishing a PTA\(^1\) team. In a conversation with the company’s shop steward and a couple of the other participants (employees) they told me that they had bad experiences with previous courses on which they had also created new ideas for a better workplace. Their experiences with the previous production manager, and the company’s managerial staff incidentally, was they had praised and supported their proposals, but subsequently nothing had happened. They said that they therefore were positive, but also skeptical about the course, and they were particularly positive about the production manager’s active participation. This also came up in an evaluation we held at the end of the last day. Here the shop steward reiterated that the production manager’s active participation had been very motivating for participation, but he hoped the projects would be taken seriously. This was with reference to the previous bad experiences with lack of follow up activities.

Discussion:

The second factor from my findings about transfer in employee-driven innovation is a point heavily highlighted in the literature about transfer in working life including employee-driven innovation: management’s support and participation: (Caputo, et al., 2002; Brinkerhoff & Apking, 2001; Kanter, 2000; Kesting & Ulhøj, 2010; Smith et al., 2012; Rapp & Eklund, 2002). From the start the participants had already articulated that management also had a crucial role.

It was therefore essential for transfer from the training programme to the shop floor, that the production manager was an active participant throughout the entire process to achieve transfer from idea to implementation of the employees’ projects. There was managerial involvement in this

\(^1\) PTA is a Danish term for technical support
project of employee-driven innovation beyond what is dealt with in papers on managerial involvement in employee-driven innovation referred in this section and in the literature study.

In *High impact learning*, Brinkenhof and Apking (2001) state regarding transfer of training and workplace learning that if new qualifications have been used or taken seriously by the management, this could have negative effects on transfer. If employees feel there is no connection between new skills and their daily work, or the employer refuses to apply the employees’ new skills, there will be a risk that employees lose trust and commitment. I saw the same risk in this action research programme. Most of the employees were committed from the beginning to participate in the training programme and in employee-driven innovation but somewhere behind the positive attitude; there was also a pronounced scepticism with regard to their past experience. In this case the active participation of the production manager throughout the entire project made a crucial difference. First, he was direct involved in implementation of the employees’ projects. But his participation was also a symbolic contribution to the employees’ trust that employee-driven innovation would be taken seriously this time.

**There is a need for formal organisation in implementation of the employees’ ideas**

**Findings:**

Each of the five projects included a plan or description of how the project should be organized and implemented subsequently in the company. Those plans included a schedule for implementation, participants in the project teams and information about the person responsible for progress in the project (project manager). The production manager and the HR consultant participated in all the project teams. One of the projects dealing with better
quality assessment of subcontracting included executives from other parts of the company. In the four other projects only staff members from the production unit participated.

Discussion:
The first two factors listed in the findings are quite broad and simultaneously factors that are discussed in existing research on employee-driven innovation and transfer. Conversely, the two findings below are almost practical recommendations on how companies support transfer in employee-driven innovation. However, both proposals are within the frames of the four meta-categories presented in the literature study.

The first factor is the need for an organisational framework to support implementation of employees’ ideas. According to the previous factor, the first part of such an organisational framework is management. The manager needs to be visible and support employee-driven innovation. However, the data from the action research project shows that this is not enough. There is a need for a practical form of organisation that takes care of everyday activities to ensure the implementation of employees’ suggestions. Such activities are convening meetings, preparing agendas and minutes, following up on decisions and agreements, obtaining prices for equipment or training etc. Someone in the organisation needs to take care of this job in order to achieve transfer. Cecilia Rapp and Jörgen Eklund develop this point of view in an article about the introduction and implementation of a suggestion scheme in a Swedish company (Rapp & Eklund, 2002). They describe a process in three phases. In the first phase, the system was introduced and incorporated into the organisation. In the subsequent stage, which was a lack of interest and use of the suggestion scheme? Finally, the paper describes the third phase, which was a (successful) revival of the project. The reason for the decline of interest in the second phase, the article mentions, is no one in
the organisation took responsibility for the operation and maintenance of the system. There was still a managerial decision to implement the suggestion scheme as a part of TQM, but that is not enough when nobody handles the daily task of operation and maintenance.

Similarly, to the paper of Rapp & Eklunds (2002) the findings from Bramidan reveal that practical and administrative organisation to support transfer in implementation of changes is a vital contribution. Further, the finding from the action research project showed that such an organisation should be located outside the blue-collar workers departments and among managers. As previously argued employees whom are not hired to perform R&D activities perform employee-driven innovation. Therefore, employee-driven innovation is often associated with tasks different from industrial operator’s tasks. Typically, blue-collar workers have the skills to participate in teams in development projects, but they do not have the skills required to co-ordinate and manage projects. Conversely, managers have the skills to co-ordinate and manage the practical side of projects, but they don’t have time to fulfil the role satisfactorily.

When the employees on the training programme avoided criticism of the fact that their ideas and suggestion had not been taken seriously by the management in the past, this is not necessarily an indication of management’s resistance to the suggestions. Both the production manager and the HR consultants argue that the main problem was not resistance to the projects, but lack of time and rapidly changing demands on the manager’s attention. After a few weeks, the manager had forgotten the agreements with the employees, but the employees had not.

There is a need for a facilitator for writing and documentation in the dissemination of employee-driven innovation
Findings:
The total of five projects was created through teamwork and plenary discussions on the three working days. However, I formulated the projects based on discussions in plenary sessions, I attended and took notes in the teams that created the projects, participants were asked to write down keywords and I had conversations with the employees about the contents of the projects. The procedure was that the teams got my draft for review and approval before it was presented to the management and the other participants in the training programme.

Discussion:
This contribution to creating transfer was never included in the literature reviewed in this paper about employee-driven innovation. There was a need for me as an educator and facilitator to formulate the participants’ projects. The feedback as a result of that was extremely positive. Several of the participants told me they did not have ability to formulate papers to make a project plan at the same level. In the evaluation one of the participants said he was proud of the project, because the team’s ideas were now formulated in professional language that management could understand and relate to. He was also convinced that the employees’ ideas were taken more seriously. In a similar project, a shop steward told me, the reason why some employees feared courses was the need to express themselves in writing (Kristenen & Voxted, 2011).

It has already been mentioned that this aspect of transfer is not included in the literature study. But the theme of providing direct support for employee-driven innovation is implicitly included in the literature study. An article by Evans and Waite (2010) shows how skills acquired on language courses (reading and writing in English) contribute to employees’ participation in organisational change. Another context in which this aspect is unfolded but in a different way, is in organisations
where there are often two different regimes of knowledge (Voxted, 2009). The first knowledge regime is grounded among members of the R & D staff, the managerial staff and academically educated staff members in the techno structure and support staffs. Those employees’ solutions are based on explicit and often academic knowledge and solutions and suggestions are documented. The second knowledge regime is, that knowledge and solutions developed and practised by skilled and unskilled workers on the shop floor are often based on implicit knowledge and created through ‘learning by doing’ and ‘learning by experience’. This also means that employee-driven innovation practised by shop floor employees’ is mainly based on common sense and tacit knowledge. For that reason, an important challenge for organisations is to make the employees’ tacit knowledge visible and bring it into interplay with academic knowledge to create organisational learning. This challenge is a prominent theme in the literature on transfer and employees’ participation in changes in organisations (Axtell, 2000; Ellström, 2001 & 2010; Eraut, 2004; Høyrup, 2010; Kesting & Ulhøi, 2010; Merriam & Leahy, 2005; Nonaka & Takeuchi, 1995). The secretarial function referred to in my findings was a key activity for visualising the employees’ tacit knowledge and common sense solutions.

Organisations need to accept unequal participation among employee’s in employee-driven innovation

Findings:
An observation from the action research process and the employees' workload in the project teams was that the commitment was quite different. There were huge differences in employees' motivation and work effort between the five projects. The HR consultant stated in a follow-up interview that those differences also reflected the commitment in the way the participants in the project teams worked with the projects in the implementation process. The
interview took place eight weeks after the course was completed. She told me there was a high degree of activities in three of the five projects, and two of them had come very far and close to implementation, which she attributed the employees’ commitment and their ownership to the ideas. A finding substantiating this point of view is that six projects were started in the action research process, but one of them was never established. The two employees’ who worked on this project did not finish it.

Discussion:
A last factor from the action research project was that the 15 participants had very different levels of engagement in the training programme, and there were significant differences in how ambitious the employees were in shaping their ideas and projects. This leads to the consideration that the individual’s motivation, knowledge and ability to cooperate are essential for transfer (Axtell et al., 2000; Brinkerhoff & Aping, 2001; Høyrup, 2010; Maurer et al., 2011). The findings in the action research project were identical with the results pointed out in the literature study, that the individual employees’ perseverance and commitment is just as important a factor as management’s support and involvement and the organisational conditions. This had also been crucial for the attention of the project manager and the HR consultant in the implementation of the projects. They focused on projects where the employees’ were most active.

These differences in employees’ commitment and involvement in employee-driven innovation are not a surprise. Contributions in theory of organisational change argue that employees’ involvement in development needs to be based on volunteer participation and only including staff members who wants to make a differences (e.g. Axtell, 2000; Kotter, 1997; Rapp & Eklund, 2002; Santangelo & Pini, 2011). Conversely, there are good arguments for letting everyone participate and be present in
change processes that involve employees’ participation. Bramidan wants to invite all employees to participate in employee-driven innovation. But just as important as giving everyone an opportunity to contribute is to recognise that employee-driven innovation attracts and activates a limited number of employees.

**Conclusion**

The paper lists, based on a case study from Bramidan, a SME manufacturing company, five factors which contribute in practice to the transfer of employees’ ideas to implementation in production in an employee-driven innovation process:

1) The need for a clear vision for employee-driven innovations in organisations
2) Employee-driven innovation needs management support
3) There is a need for formal organisation in implementation of the employees’ ideas
4) There is a need for a facilitator for writing and documentation in the dissemination of employee-driven innovation
5) Organisations need to accept unequal participation among employee’s in employee-driven innovation

It is the interpretation that the five factors could be used directly by other companies as tools for employee-driven innovation. For this reason, the result of the paper has relevance for practitioners in organisational development.

The five factors also correspond, to a greater or lesser degree, to the existing research-based literature on employee-driven innovation and transfer in organisations. One of the items partly invisible in research is that a facilitator formulates the participants’ suggestions. Maybe
it is because the participants in this case aware blue-collar workers. It would probably have been different if the employees’ had had an academic background.

The study supports the indications of the literature study that management’s support, participation and work organisation are key factors for achieving transfer from employees’ ideas to implementation in the organisation. The case study complements this, showing that transfer of employee-driven innovation also requires there to be organisation of the specific actions to implement the employees’ ideas.

The last finding mentioned in the conclusion is about unequal participation among the employees in the case study. This is a result implicitly indicated in several of the contributions referred to in the paper. But there is a lack of research to illustrate the extent and consequences of unequal participation in employee-driven innovation, including what impact it has on an organisation’s culture and the generation and transfer of employees’ ideas when a company needs to accept unequal participation among team members who work closely together in daily working life.

A limitation of the paper is that the findings only came from a qualitative case study in one company. However, it supports relevance of the findings that all five factors correspond with existing scientific knowledge.

**Literature**


