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An Investigation of the Idea of Individual Learning in Enabling Organizational Change

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Abstract

The purpose of this study is to investigate the idea of individual learning in enabling organizational change and therefore to provide a framework of key barriers and enablers of learning. This study aims to analyze how individual learning approaches are applied in small and medium-sized enterprises (SMEs) in Germany and which barriers and enablers result from this. As individual learning in organizations evolves into and contributes to group and organizational learning, this was considered while detecting factors that influence learning. This study is based on a qualitative research using semi-structured interviews. Interviews were conducted with employees of different hierarchical levels from SMEs in Germany to investigate their individual learning approaches as well as existing key barriers and enablers of learning in their change processes. A framework of key barriers and enablers adapted to the learning approaches of these SMEs was created. The findings indicate that these SMEs rather focus on facilitating enablers to learning than on eliminating barriers. Furthermore, they show how important it is for these SMEs in Germany to consider key barriers and enablers of learning and provide indications whether their effect on the change success is positive or negative. Practical implications of the most important key barriers and enablers are provided. Finally, suggestions for future research regarding how learning facilitates organizational change and what SMEs are required to do for that are made.

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1. Introduction

“When the winds of change blow, some build walls while others build windmills. – Chinese proverb” (cited in Simon, 2011, p.355)

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This Chinese proverb shows that organizations can either respond to change and try to use it in a positive way or work against it and try to reduce it. This refers directly to the main aim of this study which investigates how learning, as a windmill in the wind of change, can enable organizational change. The winds of change which organizations have to respond to arise from globalization, new technologies and changing customer requirements which become more individualized and complex (Hamburg and Lindecke, 2005). In order to survive in today’s business and remain strong in the face of the wind of change, organizations have to be aware of this fast changing environment and adapt accordingly (Paton and McCalman, 2008). Thus, organizational change (OC) is a topic of great importance not only for large organizations but also for small and medium-sized enterprises (SMEs) and represents the deciding reason for this study. During these organizational changes learning and adaptation is required. It is essential that employees affected by change are willing to learn about and to adapt to these changes (Cummings and Worley, 2005). Based on these considerations and for the purpose of drawing more attention to these aspects, this study engages with the idea of individual learning in enabling OC in manufacturing SMEs in Germany.

2. Literature Review

2.1. Introduction

This literature review first discusses historical concepts and theories of individual learning. Then it highlights the relation of individual and organizational learning as well as key barriers and enablers regarding individual and organizational learning. Figure 1 visualises the structure of the literature review and underpins the study as an analytical framework.

**Figure 1. Analytical Framework.**

2.2. Individual Learning within Organizational Change

Individual learning is a lifelong process and, as Mullins (2010) states, it is essential for people who have to cope with the changing nature of organizations. The importance of people in an organisation, as they are the most important resource of an organisation, makes the individual a main aspect in this study (Senior and Swailes, 2010). Individuals are involved in OC and affect it through their own ability and attitude to change (ibid.). However, learning is a process to acquire knowledge based on experience that requires changes in individuals’ behaviour (Buchanan and Huczynski, 2010) and can also be described as a redirection of people’s attention (Hendry, 1996). Accordingly, the most difficult part of the change and learning process is getting it started (ibid.).
2.2.1. Learning Levels and Approaches

Learning arguably consists of two levels of learning: the operational know-how which contains physical action, and the conceptual know-why which contains conceptual understanding of experience (Kim, 1993). In addition, Buchanan and Huczynski (2010) claim that individual learning theory can be divided into the behavioural and the cognitive approaches to learning. These two approaches assume that experience affects behaviour and that individuals cannot learn without feedback. Consequently ‘feedback’ may be an enabler of individual and organizational learning.

2.2.2. The Learning Dip and the Gestalt Perspective

In addition to having a knowledge of learning levels and approaches, Cameron and Green (2004) state that it is helpful to see what happens when people start to learn something new by looking at the learning dip. The learning dip shows the change in performance and efficiency during the learning process. This dip is initially caused by nervousness to do something new for the first time (Cameron and Green, 2004). Here it can be argued that required additional attention may be barriers to individual learning. A similar way of looking at what is happening while learning new things is the Gestalt perspective where conscious and unconscious incompetence is turned into competence and leads to the cycle of learning (ibid.). The Gestalt perspective supposes that people have a view that assumes certain things being in the foreground (or are conscious) and others in the background (or are unconscious) (ibid.). Hence, this learning process starts at the point where people are unconsciously competent and keep on doing well-known things and then become conscious of such incompetence by starting to learn new things (ibid.). Furthermore, it can start with being unconsciously incompetent. In other words, the individuals do not know what they do not know. Realising that by making mistakes or getting feedback from others and are then able to begin the cycle of learning (ibid.).

2.2.3. The Learning Cycle

Kolb’s learning cycle (KLC) is one of the most famous and frequently used approaches in the literature to represent the process of individual learning (Mullins, 2010). Kolb claims within his experimental learning theory that experiences are the source of learning and development (Hendry, 1996) and knowledge is created though the transformation of experience (Kim, 1993). However, KLC shows that learning has no end and simply starts another turn of the cycle (Mullins, 2010). Individuals need the opportunity to go through all steps of the learning cycle to making real-time experience and learn successfully (Paton and McCalman, 2008). This may represent an enabling factor of individual learning. Furthermore, the learning cycle can also be adapted to OL by using the different characteristics and skills of individuals to combine them in a group so that every characteristic of the learning cycle is equally distinct and the group incorporates specific skills required at a certain phase of the learning cycle to generate the optimum learning outcome (ibid.). The learning cycle is important for this investigation to understand how learning occurs and to reveal different learning stages where barriers and enablers may appear.

2.3. From Individual to Organizational Learning

Organizations ultimately learn via their individuals, hence theories of individual learning are crucial for understanding OL (Kim, 1993). However, OL is much more complex and dynamic than being just a simply enlarged individual learning theory (ibid.). Therefore, the 4I framework and the 3-P model will be analyzed.

2.3.1. The 4I Framework of Organizational Learning

The 4I framework developed by Crossan, Lane and White (1999) identifies and illustrates the relationship between individual and organizational learning. It is one of the most widely used theoretical concepts of OL and shows all institutional mechanisms that influence actions and processes during the OL process (Jones and
Macpherson, 2006). The 4I framework is important in order to understand institutional mechanisms that influence learning action and process, and it thereby shows how individual and organizational learning depend on each other.

2.3.2. The 3-P Model of Workplace Learning

The 3-P model of workplace learning of Tynjälä (2013) reveals the complexity of workplace learning and shows the links between different components of the learning process. It is modified from Biggs’ model of learning but focuses on workplace learning and claims that ‘learner factors’ and ‘learning context’ influence the learning process indirectly through each learner’s ‘interpretation’ (Tynjälä, 2013). This is an important factor that needs to be considered in this study as barriers and enablers of learning will also be individually interpreted. To supplement the 4I framework the 3-P model of Tynjälä can be adequately used to investigate factors influencing workplace learning in detail (ibid.). Tynjälä’s model distinguishes between the ‘learner factors’ and the ‘learning context’ which both influence the learning process and can be used as categories to identify barriers and enablers (Tynjälä, 2013).

2.4. Key Barriers and Enablers of Individual and Organizational Learning Framework

Most authors claim that in order to facilitate learning key barriers and enablers need to be considered (Billett, 1995; Campbell and Armstrong, 2013; Crossan et al., 1999; Dillenbourg, 1999; Ellström, 2001; Jain and Martindale, 2012; Klein et al., 2006; Eraut, 2011). According to Tynjälä (2013) those barriers and enablers will be divided into two categories: the ‘learner factors’ and the ‘learning context factors’. The subjective learner factors will include all positive (enablers) and negative (barriers) factors that come from the learners themself, their personal knowledge, experience, ability and motivation. Whereas the objective learning context is including all positive (enablers) and negative (barriers) factors that arise from the context that surrounds the learner during the learning process like other employees, company structure, rules and working conditions.

The following framework is used to investigate the learning approaches together with key barriers and enablers of learning in SMEs in Germany. It may also be a supportive tool to help SMEs to consider important factors that influence individual and organizational learning as well as to consider the influence on change mentioned in the literature. The framework contains key barriers and enablers (Table 1). The barriers and enablers mentioned below are later used as categories for the analysis of the primary data conducted through interviews to compare the provided key barriers and enablers of learning in the literature with the actual existing barriers and enablers in SMEs in Germany.

<table>
<thead>
<tr>
<th>Code</th>
<th>Key Barriers</th>
<th>Code</th>
<th>Key Enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Fear and nervousness of learning</td>
<td>2.1</td>
<td>Prior knowledge and experience</td>
</tr>
<tr>
<td>1.2</td>
<td>Lack of expertise and skills</td>
<td>2.2</td>
<td>Fear of falling behind or being replaced</td>
</tr>
<tr>
<td>1.3</td>
<td>Habits</td>
<td>2.3</td>
<td>Errors and mistakes</td>
</tr>
<tr>
<td>1.4</td>
<td>Reluctance to share information</td>
<td>2.4</td>
<td>Opportunity to pass through the learning cycle</td>
</tr>
<tr>
<td>1.5</td>
<td>Negative attitude towards learning</td>
<td>2.5</td>
<td>Time for experience</td>
</tr>
<tr>
<td>1.6</td>
<td>Limited human and financial resources</td>
<td>2.6</td>
<td>Supervisor or manager support</td>
</tr>
<tr>
<td>1.7</td>
<td>Standardisation or formalisation of processes</td>
<td>2.7</td>
<td>Access to learning resources</td>
</tr>
<tr>
<td>1.8</td>
<td>Inconsistent instructions and information</td>
<td>2.8</td>
<td>Clear definition of relevance and goal</td>
</tr>
<tr>
<td>1.9</td>
<td>Limited time to learn</td>
<td>2.9</td>
<td>Feedback</td>
</tr>
<tr>
<td>1.10</td>
<td>High task complexity, variety, quantity</td>
<td>2.10</td>
<td>Teamwork and close cooperation</td>
</tr>
<tr>
<td>1.11</td>
<td>Inhibit or disorder of the learning cycle</td>
<td>2.11</td>
<td>Collective knowledge base</td>
</tr>
</tbody>
</table>
3. Research methods

The research philosophy of this study will apply an interpretivist epistemological and a constructionist ontological position where research is about people rather than objects and focuses on what people think, feel and communicate. Data was collected to explore the learning approaches and the influencing factors of learning to build a conceptual framework which implies an inductive research approach (Saunders et al., 2012).

As this study aimed to investigate the research approach in SMEs in Germany and tried to discover what happens within the learning process, an exploratory study was entailed (ibid.). However, this study also aimed to identify barriers and enablers of individual and organisational learning in SMEs in Germany which implies an explanatory study (ibid.). Hence, this study used a combination of exploratory and explanatory research. A combined research strategy of exploratory and explanatory study implies the use of semi-structured interviews as they provide important background or contextual information and material for this study (Saunders et al., 2012). Qualitative interviews are very useful in the case of an inductive research design as the investigation of the learning approach requires deeper investigation and clarity (ibid.).

Qualitative semi-structured interviews of 30 to 50 minutes were carried out with employees in different hierarchical levels of SMEs in Germany who have to deal with OC. These levels range from higher-level, to middle- and lower-level management to obtain comprehensive and balanced insights and views. The sampling strategy for this qualitative research is theoretical sampling and therefore a combination of purposive and convenient sampling (Bryman and Bell, 2011).

4. Data Analysis

4.1. Learning Approach in SMEs in Germany

First of all, levels and approaches of learning within OC were considered. Therefore employees of SMEs in Germany were asked what experience they had with change and how learning approaches in their organizations took place within this change. All interviewees indicated that recently their organizations went through significant changes as a result of the reorganization of departments and the organizational structure. Furthermore, all interviewees stated that they thought these changes were too wide-reaching and excessive at the same time for most employees involved in the change. However, two high-level interviewees also argued that without being given challenging tasks, employees are not motivated enough to achieve the expected performance. Hence, this arguably indicates the existence of a demanding leadership with large requirements and excessive demand on employees in terms of how they are expected to change.

4.1.1. Levels and Approaches of Learning

Regarding the two learning levels and approaches which assume ‘feedback’ to be essential for learning, the interviewees agreed that both the behavioural and cognitive learning approaches are integrated in the learning approaches of their organizations (Buchanan and Huczynski, 2010). Furthermore, interviewees highlighted that attaining the know-why by linking motivation to results and goals of learning during change within the cognitive approach is important and needs to be considered in the learning approaches of their organizations (ibid.). Interviewees additionally highlighted the clear explanation of the change and the difficulty to convey this to the employees. Furthermore, three high-level and two lower management employees said that the ‘seniority’ of the employees involved in change plays a major role.

4.1.2. The Learning Dip and the Gestalt Perspective

Concerning the learning dip and the Gestalt perspective, high-level and middle management interviewees emphasized that changes cause uncertainty and fear which need to be taken from the employees by guiding them and showing them how to ‘do things right’. All interviewees claimed that this is done through initial training at the
beginning of the change, by explaining the reason why change is necessary and what the benefit will be. Within the training, learning by doing is considered the most effective method to prepare employees for changes.

4.1.3. The Learning Cycle

Kolb’s experimental learning theory was indicated by statements of the interviewees in relation to the necessity of having practical experience, thus, the learning cycle is likely to start with the activist learning type (Cameron and Green, 2004). However, five of the eight interviewees claimed that it is also possible in their companies to start the learning cycle at the theoretical stage, by providing training, courses and material, before moving to the practical experience stage, in order to guide employees from the beginning of the change. It therefore cannot necessarily be assumed that German SMEs actually follow KLC by passing through all four stages because all individuals learn differently. However, these data show that these SMEs in Germany are aware of the basic assumptions of Kolb’s experimental learning theory and applying it at least in part.

4.2. Barriers and Enablers Effecting Learning in SMEs in Germany

In order to answer the research question whether there are barriers that hamper learning and enablers that facilitate learning in SMEs in Germany, the framework of key barriers and enablers was created in the literature review to categorize the most relevant factors influencing learning and thus effecting change. Indications about barriers and enablers from the interviewees were interpreted and counted to get the following results (Table 2).

Column four shows how many different interviewees indicated certain barriers or enablers. If one factor was mentioned by the same number of interviewees the number of total mentions was considered to indicate the importance of these factors for the SMEs. In order to create a framework closely adjusted to the learning approaches of SMEs in Germany and to select the most relevant key barriers and enablers for them the first framework will be condensed. Consequently, only factors that had been named by more than half of the interviewees (minimum 5) were chosen to indicate their importance for SMEs in Germany. As indicated in table 2, certain factors were summarized (see arrows) or removed (see crossed out factors) based on repeated statements of interviewees regarding which factors entailed or caused each other or were not noticed within their SMEs.

4.2.1. Learning Context Barriers

The second most frequently mentioned barriers coming from the learning context were ‘limited human and financial resources’, ‘standardization or formalization of processes’, ‘limited time to learn’ and ‘high task complexity, variety, quantity’. Here interviewees claimed that change processes were often too extensive, and that existing human and financial resources were limited and consequently required more than the time provided to learn and adopt these changes. Interviewees conversely perceived it as a barrier to learning due to the high pressure of needing to complete tasks on time. This again indicates that limited time, and ‘limited human and financial resources’ hinder continuous learning and change (Wong and Aspinwall, 2004) where learning opportunities need to be provided in order to have a competitive workforce and to realize the required changes (Susman et al., 2006). Moreover, interviewees disagreed that ‘standardization or formalisation of processes’ is a barrier by highlighting that ‘growth is just manageable through standardization’ (High-level management) and that standardized processes are needed to be able to improve them and thus to make them more effective to reduce costs.

4.2.2. Learner Factor Enablers

Finally, regarding enablers coming from the learner themselves ‘prior knowledge and experience’, ‘fear of falling behind and being replaced’ and ‘errors and mistakes’ discovered in the literature, were all mentioned by interviewees as being important to consider. Learning through ‘errors and mistakes’ was mostly related to learning by doing in order to do practical things and learn while doing mistakes and discovering other ways to cut out these mistakes. ‘Errors and mistakes’ related to practical working and learning processes are opportunities to learn and to improve methods and ways of doing things (Ellström, 2001).
4.2.3. Learner Factor Barriers

In terms of barriers coming from the learner themselves, ‘fear and nervousness of learning’ were recognized by the interviewees as a barrier they needed to be aware of. Furthermore, interviewees claimed that this was already known and tried to be overcome with guidance and thorough trainings in their SMEs, but that this barrier should be prevented rather than solved afterwards. This was denoted by most interviewees while connecting a ‘negative attitude towards learning and change’ with ‘habits’.

4.2.4. Summary

As one aim of this study was to adapt the framework of key barriers and enablers to the special requirements of SMEs in Germany the results in relation to this are shown in table 3.

5. Conclusion and Recommendations

This study shows that there are key barriers and enablers within different learning approaches in SMEs in Germany. These barriers and enablers need to be considered in order to facilitate the learning success of these SMEs. Through the investigation of the idea of individual learning in enabling OC, this chapter provides recommendations for the SMEs involved. Key barriers and enablers are listed in table 5, and are ranked according to their importance.
Table 3. Adapted Framework.

<table>
<thead>
<tr>
<th>R* Code</th>
<th>Key Barriers</th>
<th>Nr. of Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1.1</td>
<td>Fear and nervousness of learning</td>
<td>5</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Habits and negative attitude towards learning and change</td>
<td>6</td>
</tr>
<tr>
<td>Learning context factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1.6</td>
<td>Limited human and financial resources</td>
<td>6</td>
</tr>
<tr>
<td>2.1.9</td>
<td>Limited time to learn</td>
<td>7</td>
</tr>
<tr>
<td>2.1.10</td>
<td>High task complexity, variety, quantity</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Key Enablers</th>
<th>Nr. of Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.2</td>
<td>Prior knowledge and experience</td>
<td>5</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Fear of falling behind or being replaced, pressure</td>
<td>5</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Errors and mistakes through learning by doing</td>
<td>8</td>
</tr>
<tr>
<td>Learning context factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.4</td>
<td>Opportunity to pass through the learning cycle &amp; time for experience</td>
<td>7</td>
</tr>
<tr>
<td>1.2.6</td>
<td>Supervisor and manager support</td>
<td>8</td>
</tr>
<tr>
<td>1.2.7</td>
<td>Access to learning and information resources</td>
<td>8</td>
</tr>
<tr>
<td>1.2.8</td>
<td>Clear and consistent instructions, information and definition of relevance and goal</td>
<td>8</td>
</tr>
<tr>
<td>1.2.9</td>
<td>Feedback</td>
<td>8</td>
</tr>
<tr>
<td>1.2.10</td>
<td>Teamwork, close cooperation and communication</td>
<td>8</td>
</tr>
<tr>
<td>1.1.7</td>
<td>Standardisation or formalisation of processes</td>
<td>8</td>
</tr>
</tbody>
</table>

* Ranking: 1 was mentioned most, 4 was mentioned least
**Interviewee who mentioned the barrier or enabler

The practical implication of these key barriers and enablers is an enabling of OC by considering these factors in order to improve individual and collective learning for successful change. Hence, factors considered by the interviewees to be the most important ones and with the highest potential to be implemented and applied effectively without major difficulties are highlighted to give specific recommendations. For the learning context key enablers it is recommended that:

1. Individuals and groups involved in learning processes towards change need to be supported and guided by supervisors and managers in order to guarantee a successful change.
This assumes that supervisors and managers need to be trained how to imply and manage change successfully. Workshops and training sessions, where participants learn to guide and manage change by case studies or practical tasks are recommended. Regarding implementation employees should be supported and guided through regular meetings where the procedure and progress of the change are discussed, and they should be provided with workshops or trainings to explain and teach the change to affected employees.

2. ‘Access to learning and information resources’ needs to be provided to individuals during the learning process in order to facilitate self-regulated learning which also arguably contributes positively to group learning.

This requires a supportive learning atmosphere where time to learn, and learning material such as documents with process and task specifications, possibilities to practice, and task-related seminars and trainings are provided. These learning and information resources need to be made familiar to employees so that they know about their existence, and also about where, why and how to use them in order to facilitate learning about how to change. For the identified learning context barriers it is recommended that:

3. ‘High task complexity, variety and quantity’ needs to be balanced over time and among certain individuals and groups so as to not overexert them, and also to provide an ideal atmosphere and base for learning in order to change.

Therefore, it is necessary to know the abilities and skills of employees involved in the respective change. It is therefore recommended to conduct a performance review with the affected employees to then adapt the tasks to employees’ strengths.

4. ‘Limited time to learn’ within change processes needs to be prevented by providing enough time to learn, giving enough practical experience and gathering the required knowhow in order to be able to change.

This assumes that employees should have the explicit permission and instructions from their organizations to learn and internalize the change, and at that time do not need to concentrate on their day-to-day work. It is recommended to take pressure from the employees and to let them see how important learning is to change.

To conclude, this study has shown that learning within change plays a major role in the ever-changing business world and is a key topic of immense importance for these (and arguably other) SMEs to stay competitive and forward thinking in today’s environment.

References


Cummings, T.G. and Worley, C.G. (2005) Organization development and change, 8th edn, Mason, Ohio, Thomson/South-Western

Godin, S. (2007) The dip: A little book that teaches you when to quit (and when to stick), New York, Portfolio
Thomson, B. (2006) Growing people: Learning and developing from day to day experience, Oxford, Chandos

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