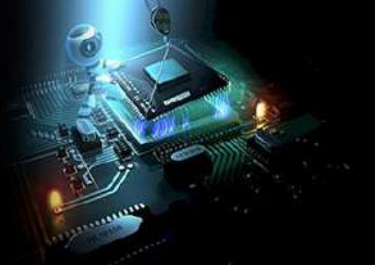


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On the way to a new training culture the contribution of eLearning to companies

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Abstract

The new information and communication technologies have our lives undoubtedly changed a lot (Klett, 2020) ^[10]. Also, the innovations in further education are currently technology-driven. In the use of multimedia technologies are both on the company side and the side of the educational institution's, high hopes are set (Thiessen, 2016) ^[19]. The need for ongoing On-the-job training in many professions is undisputed today. However, on the one hand, this increased need for training results in increased costs for companies.

Further training, as well as the call for timely and job-related, Learn with yourself. On the other hand, against the background of these developments, more and more are going Companies to train their employees about eLearning offers (Dittler, 2020) ^[3]. The expectations of this new form of Lemons were very high. eLearning became touted as inexpensive, efficient, and flexible. Learners can at any time access the wide range of offers at home or on the go. Something like that was the title of many magazines two years ago. But the first "hype," as studies show, is above. The first Euphoria for eLearning follows many companies' certification (see, e.g., haben, 2020).

Last but not least lies, This is also due to the lack of didactic concepts for eLearning offers. The missing fundamental didactic concepts are often supported by multimedia fireworks replaced (Laves, 2020) ^[12]. Furthermore, the possibilities of eLearning often overestimate what is closely related to vague ideas about possible manifestations of this form of learning.

Keywords: eLearning, culture, companies, training, education, and technology

1. Introduction

Learning means learning with the help of electronic media. The methods they use are very diverse. They range from computer-based training (CBT) or web-based training (WBT) to online learning. Computer-Based-Training (CBT) refers to learning programs that have been in use since the 80s be used for self-learning based on computers (Bruns & Gajewski, 2018) ^[1]. Web-Based-Training (WBT) describes learning about the network environments such as the Internet, intranet, or extranet. The essential elements are information systems (e.g., databases) and learning programs with exercises, tests, etc. (Ibringer, 2015). When learning online or on the net, the learners take action and tutor to a server on which the relevant data is stored. Tutors and students can communicate synchronously or asynchronously with one another (Bruns & Gajewski, 2018) ^[1]. The virtual classroom is a term that occurs more and more frequently. What is meant is the conveyance of learning content in the part of a virtual training course. Lecturers and participants are spatially separately but connected in a virtual classroom. An often-quoted term in the context of eLearning is eLearning platform or also Lemplatform. An eLearning platform is a system that enables a virtual training center to be set up within a company. The platform's core is the management of eLearning offers and any learning media and the user. In addition, many offer Platforms a lot of other possibilities, e.g., Media libraries, virtual ones, Communication methods, search functions, separate work areas for everyone Lemenden, etc. The platforms are mainly depending on the requirements of the company compiled and further developed.

1.1 Expectations of eLearning in further education

Companies' expectations regarding learning are diverse and reflect Euphoria again, with del 'this new form of education. The possibility of flexible learning independent of time and place is the top priority del 'expectations of large companies (see haben, 2020; Klippel' & Markart, 2016).

Second is the time savings, which one can find through the use hoped for by eLearning. With the requirement of self-directed learning based on eLearning methods, there is still a lot of hope for cost savings third digit. The advantage of increased quality of education, on the other hand, is the least expected. The expectations of eLearning were very high. But set by the CDAX companies only use 1/3 eLearning, as a study clearly showed (Harthoff & Klippel', 2020) [6]. The expectations of eLearning have so far been only moderately fulfilled. Only the possibility of flexible learning and the aspect del 'Zeitersparnis is rated as relatively positive. (see haben, 2020; Harthoff & Klippel', 2020) [6].

The widespread reluctance to use eLearning was mostly about problems when this new form of learning was introduced. Besides, underestimating the costs for electronic training measures is provided by the lack of acceptance among employees, one of the biggest problems (Klipper & Markart, 200 I). But also a lack of high-quality extremes Companies cite offers as a stumbling block. In addition, the selection of the topics conveyed by eLearning, mainly on I.T. applications, commercial specialist topics, foreign languages, and product training, is limited (see haben, 2020). With the introduction of eLearning comes.

To make matters worse, this form of learning is more additive than integrative with the existing one. The further education landscape is embedded. There are weak points here in the implementation planning, the complexity of the project structures, and extensive time planning. Despite the difficulties that existed, most companies also plan to use eLearning to train further (see haben, 2020). Greater awareness of the potential for improvement, especially concerning the didactic Preparation and the meaningful integration of eLearning into the existing further training, forms the starting point for thoughtful handling of the topic. The one aimed at change in continuing education implies more than just introducing new one's Information-and communication technologies. AIlein adding the technologies brings no added value to the traditional teaching and learning methods. Using the latest technologies for learning is only helpful if done before happens against a new learning culture background. What does a new teaching culture and learning from, and where it differs from the traditional approach? The following section looks at these questions

2. A new teaching-learning culture

Even today, the experience of many learners is across all possible educational institutions shaped by teaching and learning taking place in environments in which the teacher has an active role, and the learner has a more receptive role determined (Reinmann-Rothmeier & Mandl, 2016). Behind such, a very passive form of learning is essentially the assumption that knowledge is a sequence of facts, is learning, and routine, and is like a good from one person to one can be passed on to others. In the context of the traditional form of teaching, so-called lazy knowledge is often generated, i.e., the knowledge that is available in a situation was theoretically learned but not used in an application situation (Renkl, 2014) [18]. In contrast, there is a new learning culture based on a Constructivist view of Lernen based. Knowledge is not a product that can be passed on from one person to another - one of the basic assumptions of this approach. Knowledge is not simply received in a receptive manner but actively depending on

the prior knowledge, motivation, and attitude of the individual acquired. The active learner is in the foreground of this position. According to a constructivist conception of teaching and learning are the following Criteria for the learning process in the foreground:

- Learning is an active process, i.e., only through the active participation of the learning becomes possible.
- Learning is a constructive process, i.e., without individual experience and knowledge, background and own interpretation do not occur.
- Learning is a self-directed process, i.e., when learning, it takes over learning steering and control processes
- Learning is a social process, i.e., learning is an interactive event and always includes social components.
- Lernen is an emotional process, i.e., performance-related and social emotions have a strong influence on learning. In particular, about the motivation for education, the emotional component is an integral part essential
- Learning is a situational process, i.e., learning always takes place in a specific context.

This new learning culture aims to impart practical knowledge to bridge the gap discussed between knowledge and action.

In studies, however, it has been shown that the learner, despite an active role in the learning process, depends on the learning prerequisites. There is always a specific measure that needs instruction to learn effectively (cf. Renkl, 2014; Grasel, 2017) [18, 4]. This means that the learner can answer questions or problems supported and, for example, feedback on their results receive. But even with group-specific problems, the lecturer offers, e.g., support through group rules. The design of problem-oriented learning environments provides a pragmatic way of understanding the new concept of teaching and learning to implement and with the research findings link. A balance between instruction and construction forms the basis of problem-oriented learning environments.

This new culture of teaching and learning finds its realization in problem-oriented learning environments. For the concrete implementation of more problem-oriented learning environments, guidelines were developed, briefly presented in the following. These global design principles can also be applied to implementing virtual or network-based learning environments (ReinmannRothmeier & Mandl, 2016).

- **Learning in an Authentic Context:** The starting point of learning should be authentic problems relevant to the learner. Because the representation of realistic problems or authentic Hillen secures you high application relevance of what has been learned and generates interest in learning.
- **Learn in multiple contexts:** The learners experience different application situations clarified. The learners are encouraged to do this concretely apply what has been learned in several other problems (e.g., through the integration of various application examples). In a way, knowledge can be built up under different situational conditions that can be flexibly agreed upon, implemented, and further developed.
- **Learning in a social context:** Learning and working together should be part of as many learning phases as

possible (e.g., the students work in small groups at the solution of an authentic case).

- **Learn with institutional support:** The learners get what they need resources for learning and have the opportunity to contact a consultant/coach in case of problems

Learning in the context of a problem-oriented learning environment is based alongside self-directed learning also on cooperative learning.

The new information and communication technologies now offer opportunities for learning environments against the backdrop of the new ones just presented to develop a culture of teaching and learning. In classic lessons, they are possibilities of the individual learner, actively on the learning situation, and somewhat restricted to influence the learning process. Environment, Lemzeit, Lemweg are given. The actions to which the learner is occasionally asked will (e.g., answer a question) are so limited in time and effect that the learner experiences his limitations rather than his effectiveness potential (Weidenmann, 2015) ^[20]. Active-Constructive Learning is just like that, rarely possible. Here, the new media opens up many possibilities, e.g., regarding selecting your learning path, because the option of choosing the Lemweg has a motivating effect on the learner (Deci & Ryan, 2019) ^[2].

In the following, the concrete implementation of the new learning philosophy is based on the network-based advanced training program "Knowledge Master" on the subject of knowledge management briefly introduced. As part of this program, students have the opportunity to exchange ideas in close contact with practitioners.

2.1 The Knowledge Master

Cooperation project between Siemens Qualification and Training (SQT) and the Ludwig-Maximilians-Universität München (LMU). The course was standard from the chairs for educational psychology (Prof. Mandl), for business administration (Prof. Picot), and computer science (Prof. Wirsing) of the LMU Munich developed. This is a qualification measure on the subject of knowledge management (see Reinmann-Rothmeier, Erlach, Mandl & Neubauer, 2015) ^[13].

2.1.1 The objective of the Knowledge Master: Participants are expected to last for a period of acquiring first qualifications in the field of knowledge management for six months, with the focus on the aspects of knowledge communication and knowledge management tools lies. It is all about making the participants practical to impart knowledge.

2.1.1.1 Target group: The network-based offer is aimed primarily at executives who still have a relatively low knowledge management level and want to have their first experiences in a virtual environment. The during this seminar, students have a unique opportunity to get in touch with practitioners and exchange ideas with them.

2.1.2 The basic construction of the seminar: The Knowledge Master is a modular one further training offer against the background of a new constructivist shaped teaching Lem culture was developed. The systematic design of the course is based on the guidelines of problem-oriented

teaching. As a result, the systematic design of the Knowledge Master was chosen so that learning in small groups and using traps is the program's focus. The Knowledge Master is based on an Internet platform, the so-called Knowledge Web. All network-based communication and cooperation runs through the knowledge web

The Knowledge Master is a hybrid learning offer, i.e., presence phases and eLearn eLearning phases alternate and is closely linked. He consists of three modules (basic module, communication module, and motivation, integration module). During the entire term, the participant's additional information and materials on central topics of the knowledge management which is deepened and discussed during the face-to-face meetings become. Furthermore, so-called transfer phases take place between the modules. These phases aim to allow the participants to share what they have learned, instructions to reflect on, and the possible applications in practice check and try. Finally, the experience gained in these phases is shared and discussed with the other participants on the Knowledge Web.

How are the guidelines for problem-oriented learning in the context of Knowledge Masters implemented in practice?

2.1.3 Learning in an authentic context: The basis of the course is genuine Hille on knowledge management, focusing on psychology, business administration, and computer science, which will be worked on by the participants. One case relates, E.g., to the problems that arise with mergers

2.1.4 Learning in multiple contexts: Participants receive the basic module and one case during the knowledge communication module focusing on computer science, business administration, and psychology. So have the participants the possibility, against the background of different contexts, the Tasks to 16sen

2.1.5 Learning in a social context: The trap will be shared in small groups made. The results are then shared with the others on the web board groups exchanged and discussed. The days of attendance have also themed the cooperation and the exchange of experiences

2.1.6 Learn with instructional support: The participants receive texts and documents relevant to processing the fill. They are also given tips and strategies for virtual teamwork provided. The central part of the instructional support is the accompaniment of the participants during the entire course by teletutors; in the event of problems during virtual collaboration and for questions about the traps or other content-related aspects, the teletutors can be contacted at any time.

Evaluation Urn, a permanent improvement of the course and an orientation towards the qualification measure, continuously evaluates the participants' needs. Utilizing questionnaires and feedback rounds to the present days as well as continuous observation of virtual communication and cooperation is the acceptance of the measure, the learning success, and the learning outcomes collected

3. Result and Discussion

Learning in virtual learning environments refers to experiences from practice with virtual learning environments that ensure that learners and the work in the

virtual environment by completing the eLearning offer Phases of presence are welcome (Reinmann-Rothmeier & Mandl, 2016). Out of this em, it makes sense to embed presence phases between virtual phases, in where the participants have the opportunity to meet face-to-face and exchange ideas. This mixed form of a face-to-face seminar and a virtual one is a hybrid form of learning or "blended learning." 1mA combination of Face-to-face events with various forms of network-based learning, such as Aswat, CBT, chat, forums, virtual classrooms, etc.

The possibilities for combining eLearning with presence phases are very diverse. One form is Preparation for a face-to-face seminar via eLearning with the following connection to the virtual training content in face-to-face training. You can then turn the scope on be followed up electronically. Depending on your needs, this procedure can be repeated. Another possibility is within the knowledge Masters realized form that begins with an appointment followed by an eLearning phase, followed by an attendance appointment, etc. Getting to know the participants on the first appointment is a special role in initiating subsequent virtual collaboration. The eLearning phases can be used to develop content in virtual groups.

3.1 Procedure for the implementation of blended learning

To integrate the blended learning concept into the existing training landscape, A comprehensive approach is necessary, which is very much strongly oriented towards the needs of the users of the offer. The following steps describe one possible approach for introducing blended learning

3.1.1 Vision/strategy: The starting point for implementing blended learning in a company is developing a basic vision for the project. When developing a vision for blended learning, one had to ask a few questions the prevailing learning culture in the company is supported by the management are considered. It is against the background of this vision than about developing strategic goals and setting them up to further develop the "business case" for the project. The definition of a steering committee for the overall project is an essential aspect to implement the clarification of responsibilities in advance.

3.1.2 Needs analysis: The current situation is based on these conditions in the company against the background of the developed vision and the strategic goals clarified as part of a 1st analysis. First, there are questions regarding the previous training offers and their acceptance by the participants and questions about specific opportunities for improvement and training opportunities in the foreground. The later ones are included in the survey of the current situation Users of the eLearning offer in the center. Then the desired target state in turn in close cooperation with the latter defined by users. The development of the target state should closely follow the target-specific work-related problems of the users. From the match between the actual and the target state, there is the need as a starting point for the concrete project decision and then for the definition of the operational one Aims.

3.1.3 Conception: The conception phase contains the core of the procedure. Here is the one about setting the goals against the background of didactically meaningful concepts

to implement specifically defined processes and the framework conditions to discuss the implementation phase in detail. The selection of the target group and the content for a pilot project are central here. In addition, there is the selection of the technical systems and existing WBTs / CBTs.

3.1.4 Realization: The implementation phase begins with the first pilot project for "blended learning" and is driven forward by an "implementation" project team. The clarification of the responsibilities for individual processes is also essential in this phase. The decisive factor for success here is a formative evaluation of the pilot, which serves as the basis for continuous improvement of the project. The lessons learned from the pilot project are the starting point for further implementing the company's blended learning concept.

3.1.5 Evaluation: To ensure continuous process improvement and adaptation to the users' needs, a continuous evaluation of the blended learning projects is essential. Both quality and impact analysis is carried out. A cost-benefit analysis indicates further potential for improvement and can serve as a basis for internal marketing of the blended learning concept

3.2 Some of the key aspects to be considered throughout the entire process are briefly presented below

The successful introduction of blended learning is closely linked to the corporate culture. It is the foundation of common ways of thinking, action routines and the secrets of success in a company. The people involved in blended learning should be included in the implementation process. The benefits of this new way of learning must be made transparent to employees.

Blended learning projects stand or fall with employee acceptance. One should keep this aspect in mind from the beginning and involve the employees in the process. It is important to work on the employees' specific problems to achieve acceptance. For the acceptance of eLearning in companies, continuous information of the employees about the advantages of eLearning, about the goals and the progress of the project plays an essential role. The motivation and competence of the employees are closely related to acceptance. This brings two central areas into play: personnel development and incentives. In personnel development, training and further education events for self-management and cooperation skills are required. In addition, stimulating work environments motivate employees to stimulate and encourage them to expand their knowledge. It is also effective to involve employees in the projects in a participatory manner and prepare them for changed requirements through qualification measures. In addition, the learning requirements of the employees should be taken into account in the selection of the measures.

Blended learning projects only have a chance of success if they are supported and supported by the management. It should clarify that this new way of learning is inspired by it and understood as a strategic goal. The management should view the integration of eLearning into the existing training landscape as an investment in the future. It is up to the management to make the necessary resources available to those responsible for the project. It must ensure that blended learning is anchored in the organization's mission statement

in the long term. Another essential aspect of stimulating the implementation of blended learning is integrating blended learning into business processes. Learning and knowledge acquisition must be integrated into the everyday work of employees. Both for reasons of acceptance and reasons of economic legitimation, when introducing blended learning, it is important to link the processes involved with the business processes of an organization and to link them to the economic benefits

4. Conclusion

Against the background of the social changes that lifelong learning requires, interdisciplinary skills such as communication skills, teamwork skills, etc., are necessary. In addition, it is a matter of acquiring application-oriented knowledge to ensure the highest possible transfer of further training to the workplace. As a result, the importance of problem-oriented and independent learning increases continuously. The use of the new media offers opportunities to implement this form of learning profitably. In developing and implementing a new learning culture as the basis for a change in the continuing education landscape, however, lies the great challenge of using networked learning in a meaningful way in combination with traditional methods. Just providing the technical infrastructure will not change the prevailing teaching paradigm. Although the new technologies can provide an initial impetus for change processes, long-term benefits will only emerge when the framework conditions for a new type of learning are created at universities and companies.

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