

Development of a Blended Learning Concept for the Wood Industry in Bosnia and Herzegovina

Abstract: Development of a Blended Learning Concept for the Wood Industry in Bosnia and Herzegovina

This master thesis is written in the framework of the continuous education program called Leadership and Skills Development Training (LSDT) established in cooperation with Bern University of Applied Sciences (BFH) and Bosnian wood industry companies. The training focuses on the middle management sector of those companies, which has been recognized as the major weakness in the management chain. The four-year-long project will be completed by the end of 2018, but the need for training is foreseen to continue as well as the cooperation with BFH that will be providing training support and quality assurance. The objective of this study is to develop the guidelines for a blended learning concept that fulfills the training requirements. The concept guidelines will include recommendations for an e-Learning toolkit, instructions for the creation of e-Learning courses and the necessary equipment for quality surveillance of the face-to-face lectures. In order to reach the objective, this master thesis covers research on existing e-Learning tools, platforms and didactic methods that are necessary for this kind of concept. For this purpose, a prototypical e-Learning course is developed and tested with participants as a case study. The case study comprises the conversion of 4 hours of traditional lectures into two hours of e-Learning. As a result, guidelines for a blended learning concept under consideration of the roles of stakeholders and lecturers, as well as necessary infrastructure are developed. The guidelines proposition can be considered a successful work that can be implemented with minor adjustments according to the needs of the training.

► Methods

The main objective of this thesis was to develop guidelines for a blended learning concept for an already existing international training held in a traditional face-to-face learning environment.

To make such a concept, deep understanding of existing technology and software combined with research of best practices in blended learning was necessary.

Moreover, a prototypical e-Learning course is developed and conducted as a case study. The case study consists of preparing learning content with e-Learning tools and transferring traditional lectures on to video lectures (Fig. 1).



Figure 1. Video lectures delivered via Moodle instead of traditional face-to-face lecture.

The video lectures have been uploaded to the Moodle platform together with the test related to each lecture. Those tests have served as a reminder of the main conclusions drawn during the video lecture. Aside from the video lectures and tests, forum posts and feedback proposals were also uploaded to Moodle.

They allowed the participants to communicate with the lecturer, among each other and to express their opinion about the topic and the method used for the delivery of the lectures.

► Results

The concept guidelines contain all features of blended learning together with the necessary equipment, investment costs and further recommendations. It also contains the propositions for the remote communication, as well as the equipment needed for such communication.

The roles of each group of stakeholders have been described with the exception of the working hours and the exact distribution of the lectures which should be done in agreement with the stakeholders themselves (Fig. 2).

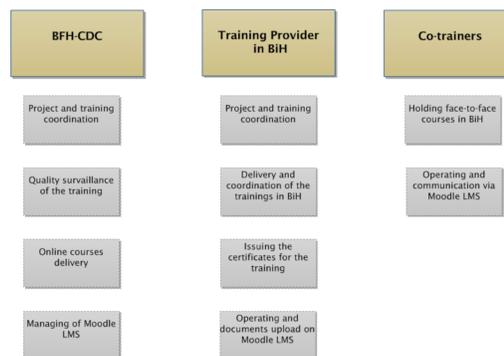


Figure 2. Roles of the stakeholders in proposed guidelines for a blended learning concept.

Suggestions for additional research regarding the communication between BFH lecturers and course par-

ticipants have been included at the end of the thesis.

This kind of communication is highly dependent on the infrastructure quality of both the BFH and the training provider from the BiH.

► Conclusion

Multiple effects could be reached with the implementation of the blended learning concept guidelines proposed in this master thesis. On the one hand the cost reduction by avoiding travel and accommodation of participants and lecturers of LSDT, because the entire training course takes place in one location.

On the other hand, the BFH lecturers could use the knowledge acquired during the recording of their video lectures for LSDT, to record similar lectures also at BFH and use it with their own students to improve the quality of their lectures. In that way, not only the quality of the LSDT could be supervised and improved, but also the quality of the lectures held at the BFH.

The guidelines given in this master thesis are feasible and implementable, however, the technical development is very fast. Therefore, it is hard to claim that those propositions will be valuable and sufficient in the future. It is highly recommended to follow up the technical development and consider all their features during the implementation of such projects.



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