

Title: Investigating a model for lecturer training that enables lecturers to plan and carry out meaningful e-learning activities

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Abstract

This paper reports on the effect of a lecturer training model in the shape of an e-learning project based on research on adult and work-based learning. A survey was conducted to explore participants' learning experiences. Findings show high overall satisfaction, motivation and engagement. Suggestions for improvement include better integration of the e-learning project with other lecturer training components, supporting participants in formulating the e-learning project and providing additional opportunities for reflection and feedback.

Introduction

The purpose of this paper is to present the results of a survey that examines the effect of an instructional model for lecturer training in the shape of an e-learning project. In order to provide optimal conditions for lecturer training, the instructional model draws on knowledge from research areas such as adult and work-based learning and on the knowledge and experiences accumulated in the Centre for Teaching and Learning (CTL) at SDU. The effect of the model is evaluated by studying the lecturers' learning experiences with the e-learning project.

The instructional model – part of the Lecturer Training Program

Since January 2010 the Lecturer Training Programme (LTP) at SDU has included a compulsory e-learning project. The specific task is for participants to design and carry out one or more e-learning activities with one of their classes and prepare a short report that describes the activity they have designed, explains the pedagogical rationale and contains their own and their students' evaluations.

Completing the e-learning project should enable the participants to live up to the vision for e-learning at SDU to be the leading Danish university in terms of the identification and utilisation of the potentials offered by e-learning.

E-learning project components

The e-learning project spans one year and participants have access to support in all phases of the project. At the first residential that marks the beginning of the LTP, participants are introduced to the e-learning project. Participants from previous cohorts share their experiences and present their completed e-learning projects. Furthermore, participants can gain inspiration, knowledge and skills on e-learning pedagogy and tools by attending open CUU courses and workshops offered by the CTL at SDU (CUU is the central staff

development committee at SDU). Additionally, participants can book an e-learning consultant for individual advice and training.

Approximately four months into the project, participants must provide a description of their idea for their e-learning project. This is called “Midterm status” and ideas are listed in a wiki on the e-learning platform. E-learning consultants provide feedback via e-mail on ideas offering advice and pointing to relevant open courses, e-learning pedagogies and tools. When participants hand in their e-learning report they also receive feedback from an e-learning consultant stating whether the e-learning project is passed and commenting on the strengths and weaknesses of the e-learning project including suggestions for improvement and further development. Participants upload their final reports to a blog on the e-learning platform. Participants have access to each other’s midterm status and final reports.

Assessment Criteria

Only e-learning activities which function as an integrated part of a course and which have clearly stated learning objectives that refer to the curriculum will result in the assessment “passed”. Furthermore, e-learning activities must contain an interactive element where students are asked to interact with online resources, fellow students and/or the lecturer. E-learning projects are assessed by e-learning consultants from the CTL.

For an overview of the components, see figure 1 below.

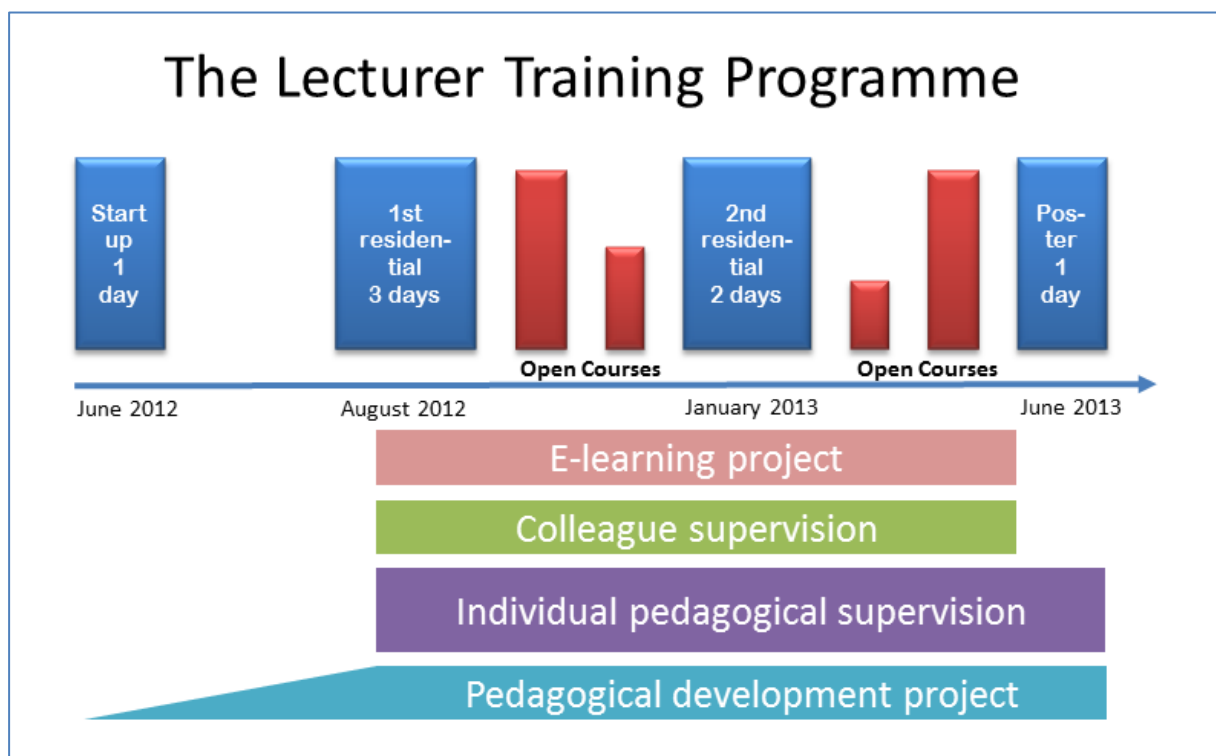


Figure 1. The components of the LTP at SDU.

In August 2013, a portfolio was added to the LTP.

Participants in the LTP are divided into colleague supervision groups of around 5 members. Each participant has an external supervisor and an internal supervisor.

The model presented above has now been in use for 4 years. Therefore, it is time to undertake a more thorough evaluation of the model and consider whether changes are necessary. In order to conduct an in-depth survey of the model and uncover areas that need to be improved, it is important to apply the theoretical perspectives of adult learning and work-based learning that originally informed the model. These theoretical perspectives provide valuable lenses for reflecting on and interpreting experiences. This in turn facilitates the development of explicit knowledge on the background of experiences made (Svensson, Ellström and Åberg, 2004). Subsequently, relevant changes can be planned and implemented.

Theoretical underpinnings

In the following, the theoretical perspectives that have influenced the design of the applied instructional model will be presented. These perspectives have also formed the basis for the questionnaire and the subsequent analysis and discussion of the survey results in this paper. Our first perspective draws on research from the field of adult learning (Illeris and Associates, 2004) and focuses on participant motivation, participant direction and problem orientation.

One of the most important issues when designing learning activities for adult learners which in this case happen to be university lecturers is that they find it meaningful to engage in the learning activities and furthermore want to develop their teaching practice. As stated by the Danish educational- and learning researcher Knud Illeris:

The generally most decisive factor for significant learning in adults is the requirement for motivation rooted in direct interest, something they feel like doing and are committed to, or a realized necessity, something they have understood and accepted to be beneficial to learn in relation to something they want to achieve.

(Illeris and Associates, 2004 quoted from Illeris, 2000, p. 61)

Participant control and problem orientation

In order to be loyal to our lecturers' academic freedom and their willingness to develop their teaching practices by integrating e-learning into their teaching, it is important to take the above assumption into account. To meet this basic assumption and to make the mandatory e-learning project a realistic learning activity for our lecturers we found it particularly relevant also to use Illeris' (2004) instructional principles on participant control and problem orientation.

The principle of participant control should be understood in the sense "... that the participants themselves have the possibility for and are maintained as directing their learning to the highest possible degree within the given framework" (Illeris and Associates, 2004, p. 173). In this case the framework consists of university lecturers creating an e-learning project where they have the freedom to decide in which of their (student) courses they find it meaningful to integrate e-learning and what specific e-learning activities they find it relevant to work with. In addition the framework consists of e-learning consultants who have the responsibility of supporting this work by providing relevant input about e-learning tools and pedagogics.

The principle of participant control also puts a significant responsibility on the participants, as in the present context, they are expected to be able to establish a locally based e-learning project. This brings us to the principle of problem orientation which states that

It is first and foremost when one works with finding out where the important problems lie, when one tries to formulate problems with precision and to develop patterns of understanding and proposals for solutions that the full learning challenge is established.

(Illeris and Associates, 2004, p.177)

In addition this principle emphasizes that the participants' formulation of a problem must have subjective relevance, which means that the formulated problem must be experienced as personally relevant to the participants (the individual lecturer) (Illeris, 1981). When participants find the formulated problem personally relevant it creates optimal conditions for the participant to generate a strong motivation to drive forward often challenging learning processes.

In the e-learning project, participants must design and carry out one or more e-learning activities with one of their classes and prepare a short report. This draws on the two principles mentioned above: participant control and problem orientation.

Key questions are then:

- How do participants experience the task of having to design and define an e-learning activity for their e-learning project (problem orientation)?
- How do participants experience the complete freedom to select course, e-learning tools and methods for their e-learning project (participant control)?

Feedback and reflection

Relevant understandings can also be found in the research field of work-based learning such as the necessity to support the participant's integration of work and learning via reflective activities (Boud, Solomon & Symes, 2001; Høystrup and Elkjær, 2006).

Reflective activities seem to play a key role at an individual and social level for the participants when working on and learning through the implementation of e-learning activities and when compiling the final report. Reflection also seems to be important seen from a critical and organizational perspective. Based on this we find it relevant to use the broad understanding of the concept of reflection put forward by Steen Høystrup and Bente Elkjær (2006). They take the concept of reflection beyond the individual which means that reflection is described from an individualized perspective, a critical perspective, a social relations perspective and an organizational perspective.

The individualized perspective emphasizes, among other things, that "*Reflection is primarily prompted by a complex situation involving problems, ambiguity and uncertainty.*" (Høystrup and Elkjær, 2006, p. 32). Most important in the individualized perspective is that reflection is seen as an individual act.

The key aspect of critical reflection is "... its insistence on asking questions of purpose and on confronting the taken-for-granted that influence individuals' thought and action". (Høystrup and Elkjær, 2006, p. 35). The use of critical reflection is not examined here, but would be interesting to pursue, if this perspective were directed towards each lecturer's existing teaching practice.

The social relations perspective highlights that reflection is a collective process. “*the process of reflection is collective; we reflect together with trusted others in the midst of practice.*” With reference to Raelin (2002, p. 66) reflection is said to “*privilege the process of inquiry, leading to an understanding of experiences that may have been overlooked in practice*”. The characteristics of reflection from the social perspective are that reflection among other things can take the shape of e.g. feedback and learning from mistakes. Reflection in relation to feedback provides us with unique opportunities to learn from the consequences of our actions whereas reflection related to learning from mistakes allows us to interpret mistakes as sources for improvement or learning. Both aspects have been found to be important in this context.

In the last perspective concerning reflection as an organizational perspective “... *reflection is understood as an organizing process in order to create and sustain opportunities for organizational learning and change* (Høystrup and Elkjær, 2006, p. 40 after Vince, 2000, p. 63). In contrast to the three other perspectives, organizational reflection has its focus on “*implementation of frames, structures, collective actions and organizational matters. The structures have to support processes of reflection conceptualized within the three other perspectives*” (Høystrup and Elkjær, 2006, p. 40). The instructional model of the LTP can be said to apply this perspective to support the individual and social perspectives on reflection.

Key question:

- To what extent do participants utilize the opportunities for feedback and reflection?

Work-based learning and transfer

From the field of work-based learning (Boud and Solomon, 2001) we find it relevant to draw on several key aspects. First and foremost that the learning activities followed by the participant

Derive[s] from the needs of the workplace and the learner rather than being controlled or framed by the disciplinary or professional curriculum: work is the curriculum.

(Boud and Solomon, 2001, p.5)

We therefore find openness in our courses and in the learning activities that we provide for our lecturers important. Instead of forcing them to use certain pedagogical approaches and technologies, they should themselves contribute to identifying the curriculum via their e-learning project.

Second, we find it relevant that learning projects are implemented directly in the workplace and that these projects are identified by our lecturers' current and future needs. This also means that learning is problem oriented rather than content driven or, as mentioned, work will be the curriculum and the role of the consultant is to engage and guide our lecturers in solving real-world problems regarding e-learning.

Thirdly, we find the close integration between work and learning useful with regards to eliminating the need for transfer when it comes to putting new knowledge into practice. The e-learning project requires that lecturers define and design e-learning activities for their own students. This creates a need for lecturers to enrol in the formal courses offered to gain the knowledge and skills relevant for their particular project. Thus lecturers should “experience school and the practical activities as a whole” which eliminates transfer (Tuomi-Grön &

Engeström 2003, p. 34 cited from Illeris and Associates, 2004, p. 164). Learning is strongly linked to the actual context in which the new knowledge and skills are to be used.

Key questions:

- How do participants experience having to use their teaching as an arena for competence development – having to learn in a work situation and having to identify own learning needs?
- To what degree does the e-learning project prepare participants to use e-learning in their future teaching (overcoming the transfer problem)?

Method

The aim of the study was to obtain knowledge on participants' experiences of the e-learning project as faculty development and the effectiveness of the support activities included in the e-learning project. The study consisted of desk research of e-learning reports written by participants and a questionnaire sent out to all lecturers who have participated in the LTP and completed the e-learning project. Furthermore, interviews were conducted to obtain qualitative data for a more in-depth exploration of the topics.

The questionnaire survey

A questionnaire was prepared on the basis of the theoretical perspectives and key questions outlined above.

A list of potential informants was compiled consisting of all participants having completed the LTP since January 2010 when the e-learning project was introduced. The list counted 201 participants. A link to the questionnaire was sent by e-mail to all 201 informants. 9 e-mail addresses were invalid bringing the total number of potential informants down to 192 people. 32 % (62 persons) completed the questionnaire and 1 % (2 persons) gave some answers.

Interviews

Six participants were interviewed. Interviewees were selected from questionnaire informants who had indicated that they would be willing to do an interview. The interviews were semi-structured and based on the questionnaire also used for the questionnaire survey.

Findings

Total percentages in the figures shown below may be >100 % because of a rounding up of figures.

Overall satisfaction

86 % of informants from the questionnaire survey are satisfied or very satisfied with the present e-learning project and the available means of support as is shown in figure 2 below.

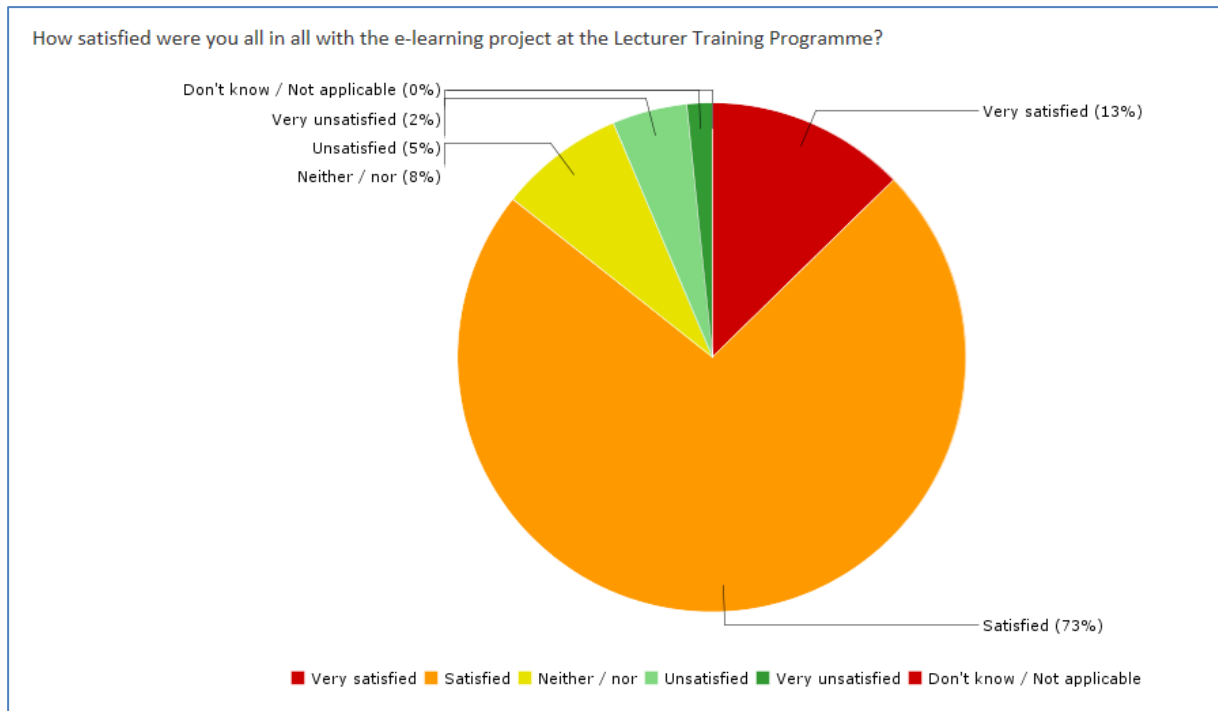


Figure 2. Overall satisfaction with the e-learning project.

Participant control and problem orientation

Defining and designing an e-learning project

An important component of the e-learning project is that participants are to define and design one or more e-learning activities for one of their classes themselves. In the questionnaire survey, 56 % of informants said that this motivated and engaged them to work actively with the e-learning project to a high degree or very high degree. An additional 35 % were motivated and engaged to some degree. See figure 3 below.

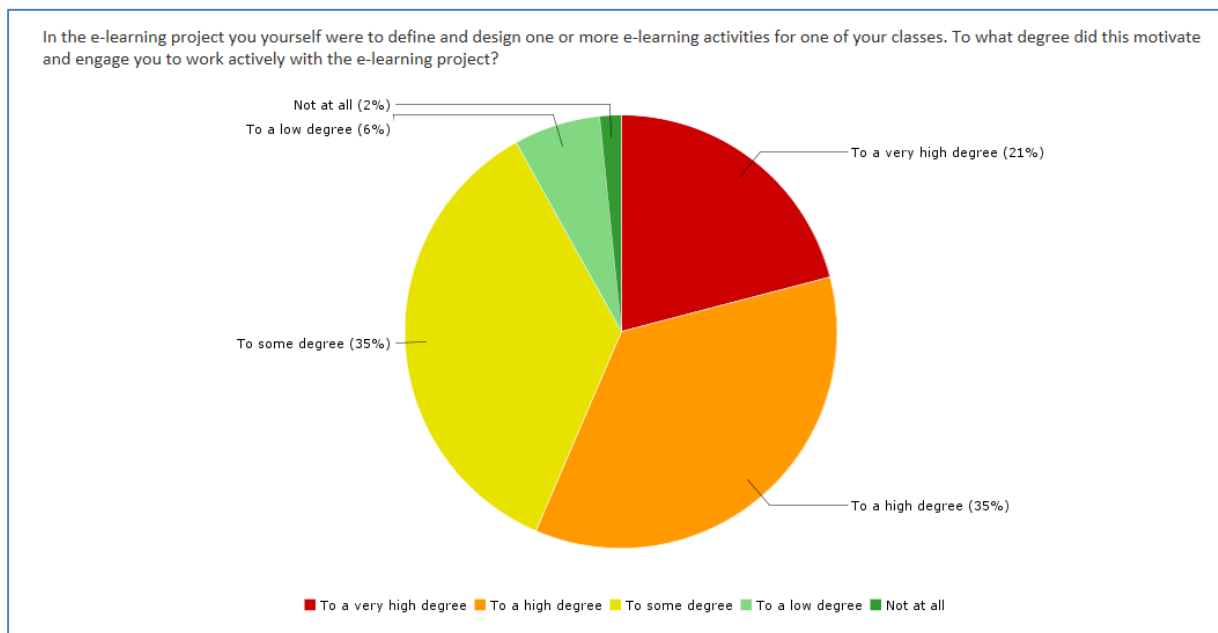


Figure 3. Defining and designing an e-learning project

Carrying out an e-learning activity

Participants were asked whether they found it a meaningful way of gaining knowledge on e-learning pedagogy and tools to carry out their planned e-learning activity with one of their classes. 61 % of informants stated that they found it a meaningful way of gaining knowledge to a high degree or to a very high degree. An additional 30 % found it meaningful to some degree. See figure 4 below.

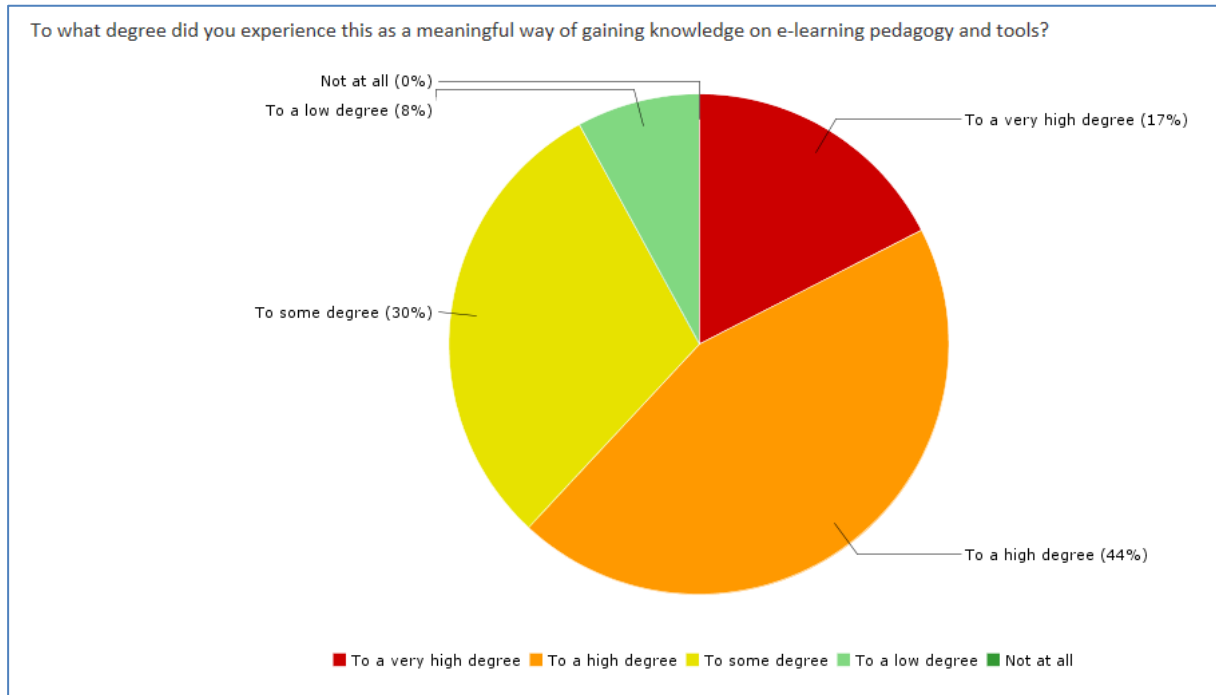


Figure 4. Meaningful way of gaining knowledge.

40 % of informants said that carrying out their e-learning activity with a class prepared them to use e-learning in their teaching in the future to a high degree or very high degree. An additional 49 % said it prepared them to some degree. See figure 5 below.

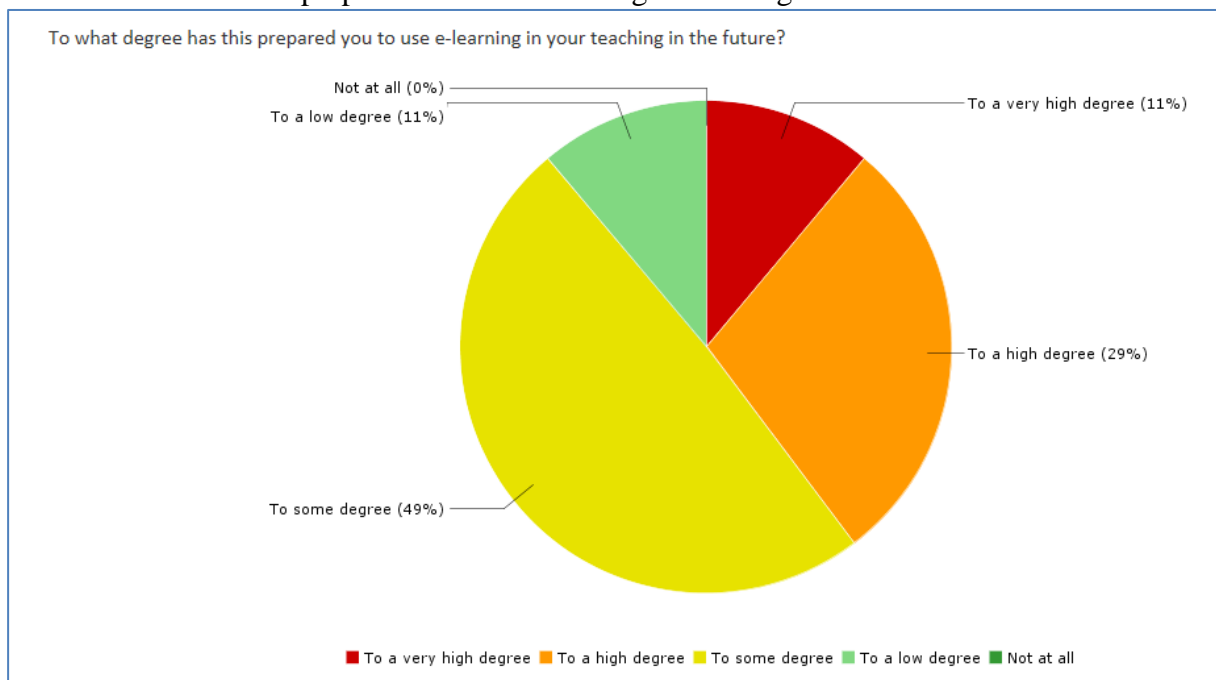


Figure 5. Prepared to use e-learning in future teaching.

Available support

The two primary means of support are meetings with an e-learning consultant and open CUU courses. Results show that 37 % of participants like both types of support. 27 % prefer meetings with an e-learning consultant and 6 % prefer a course. See figure 6 below.

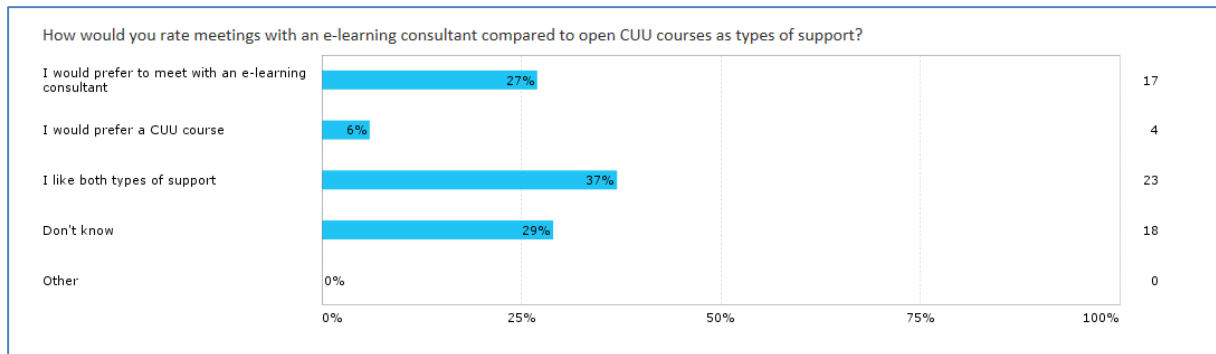


Figure 6. Individual support with e-learning consultant compared to courses as types of support.

Feedback and reflection

Discussing the e-learning project with peers and supervisors

Results show that 26 % of informants take the opportunity to discuss their e-learning project with and/or seek inspiration from the members of their colleague supervision group to a high degree or a very high degree. 34 % use the opportunity to some degree. See figure 7 below.

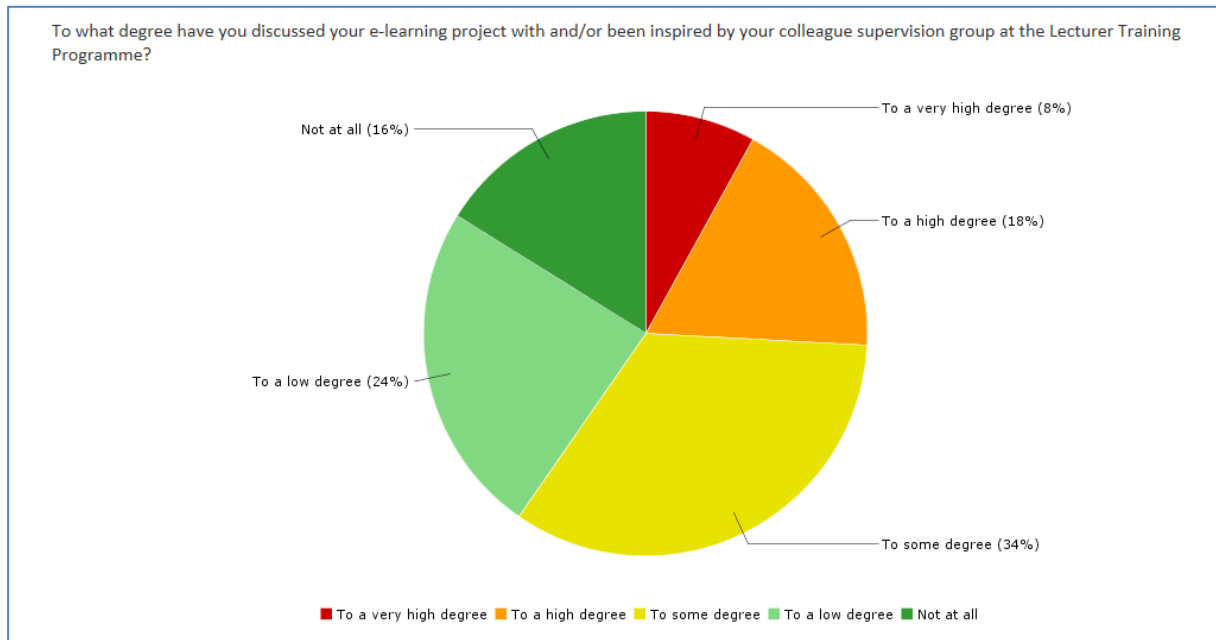


Figure 7. Discussing e-learning project with colleague supervision group.

14 % of informants take the opportunity to discuss their e-learning project with and/or seek inspiration from their external supervisor to a high degree or a very high degree. 39 % use the opportunity to some degree. 47 % use the opportunity to a low degree or not at all. See figure 8 below.

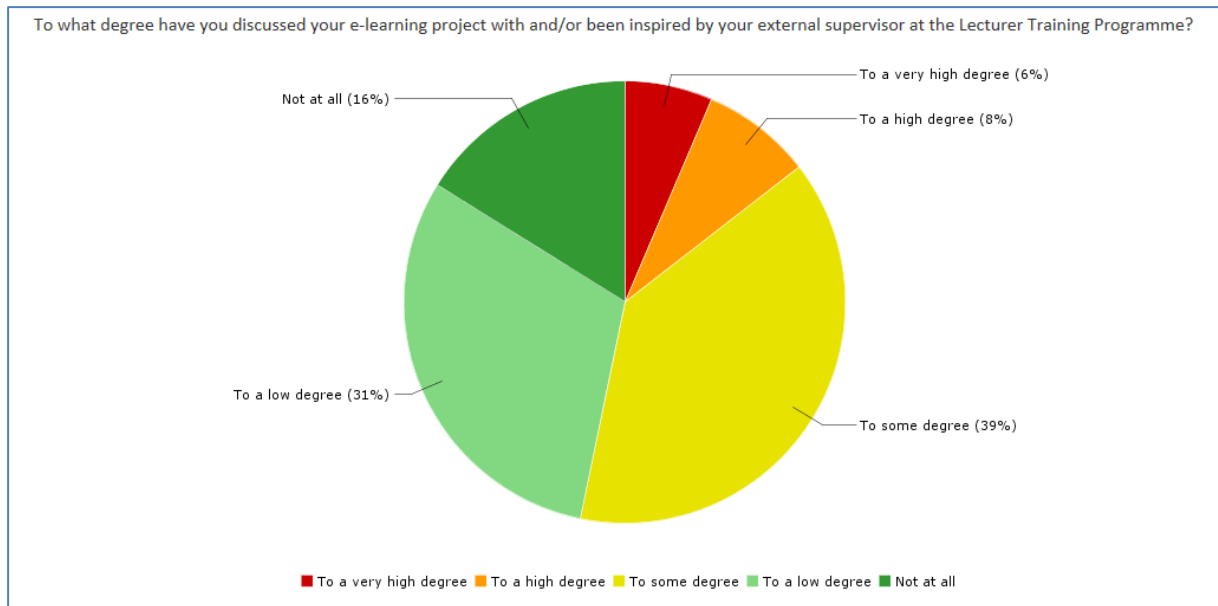


Figure 8. Discussing e-learning project with the external supervisor.

20 % of informants take the opportunity to discuss their e-learning project with and/or seek inspiration from their internal supervisor to a high degree or a very high degree. 18 % use the opportunity to some degree. 63 % use the opportunity to a low degree or not at all. See figure 9 below.

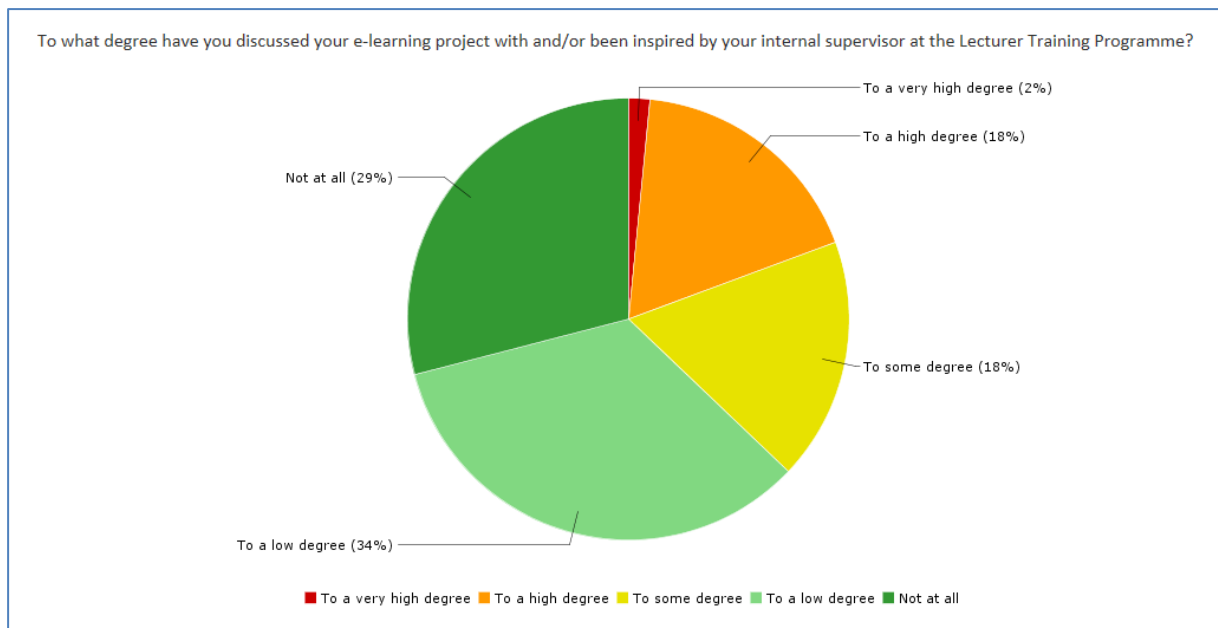


Figure 9. Discussing e-learning project with the internal supervisor.

Feedback from e-learning consultant

33 % of participants find the feedback they receive from an e-learning consultant in connection with the midterm status useful to a high degree or a very high degree. 43 % find it useful to some degree. See figure 10 below.

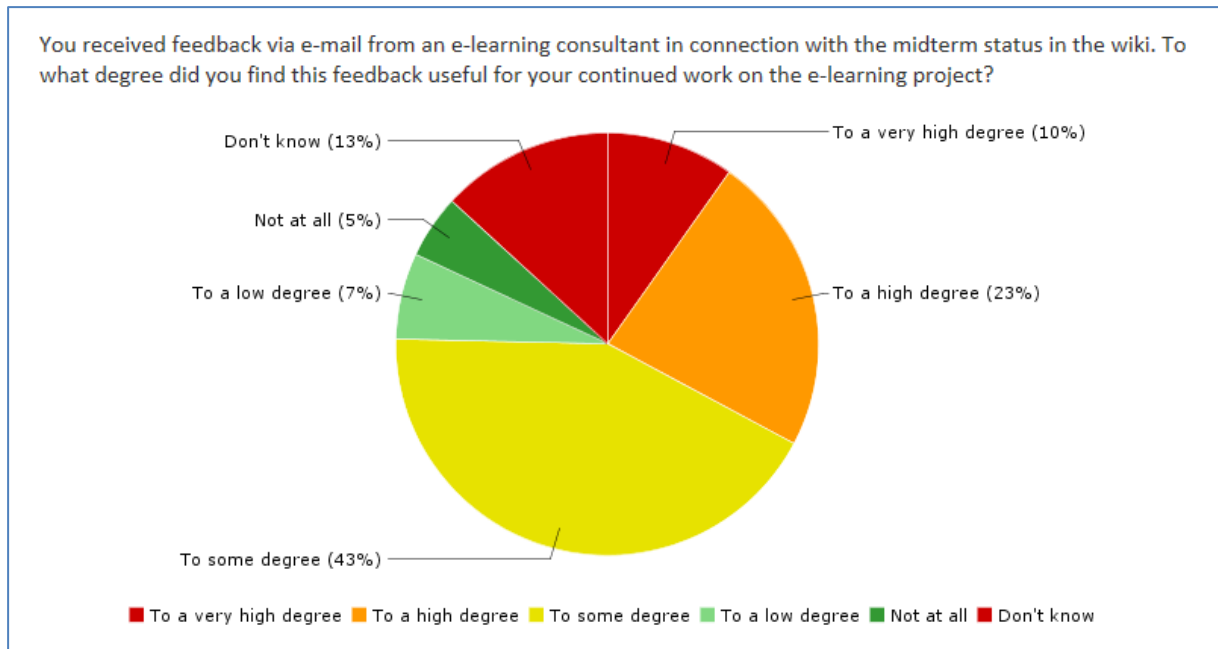


Figure 10. Feedback on midterm status.

The concluding e-learning report

48 % of participants see the preparation of the concluding e-learning report as a meaningful way of ending the e-learning project to a high or very high degree and 39 % to some degree. See figure 11 below.

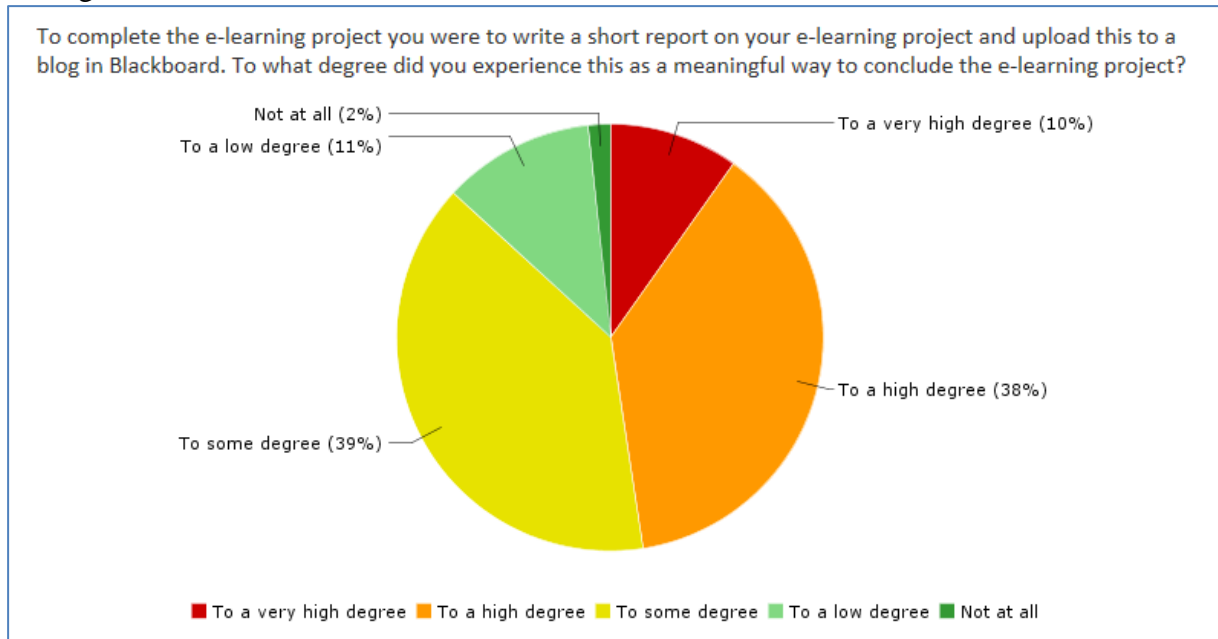


Figure 11. The concluding e-learning report.

In the questionnaire survey, 48 % stated that preparing the e-learning report contributed to their reflection on their own and students' experiences to a high degree or a very high degree. 39 % said to some degree. See figure 12 below.

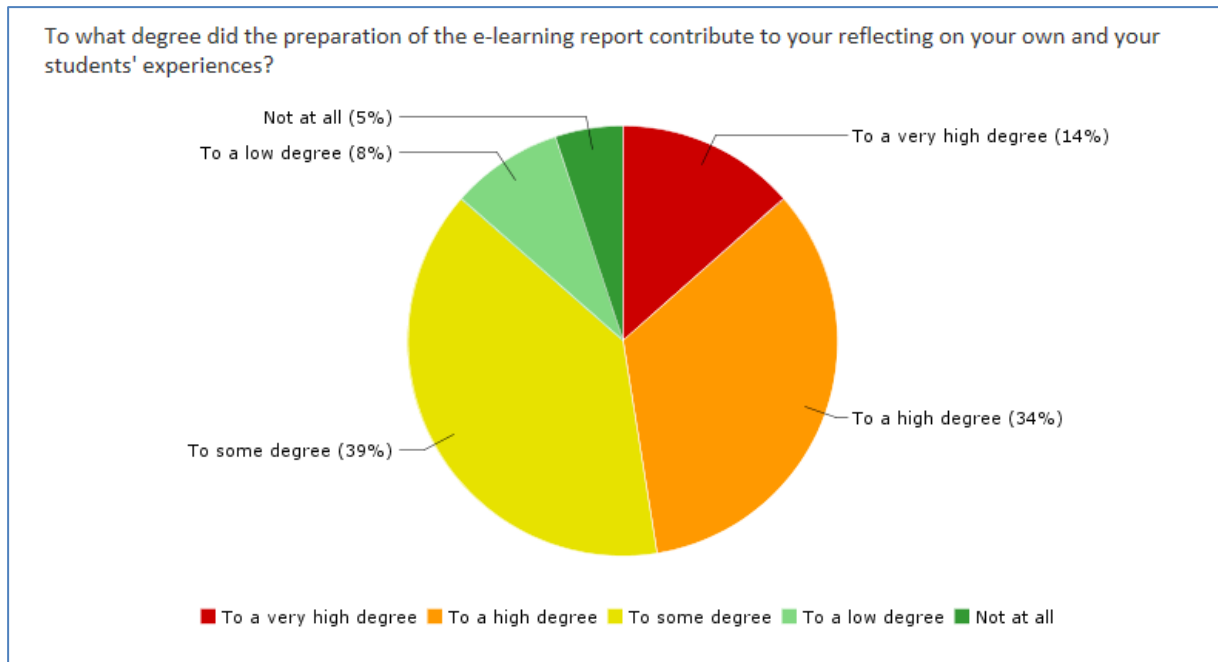


Figure 12. The e-learning report and reflection.

Work-based learning and transfer

30 % of informants stated that they use e-learning in their teaching today to a high degree or a very high degree. 46 % said to some degree. See figure 13 below.

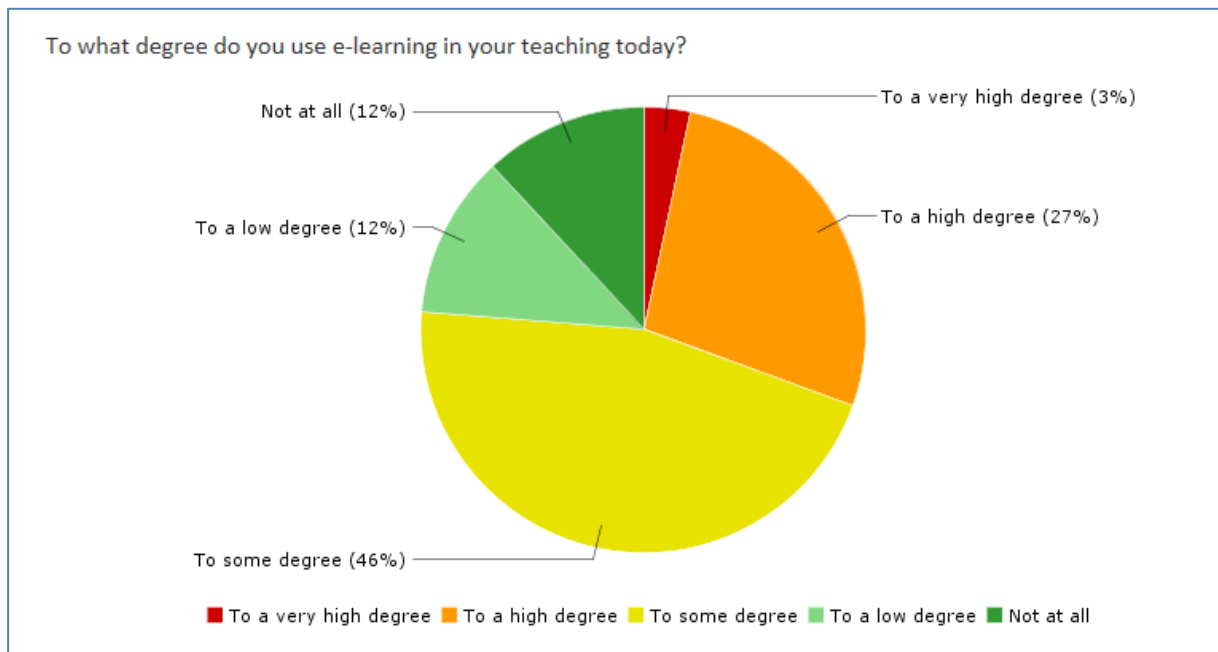


Figure 13. Using e-learning today.

68 % of informants indicated that the e-learning project has been very important or of some importance with regards to their use of e-learning today. Se figure 14 below.

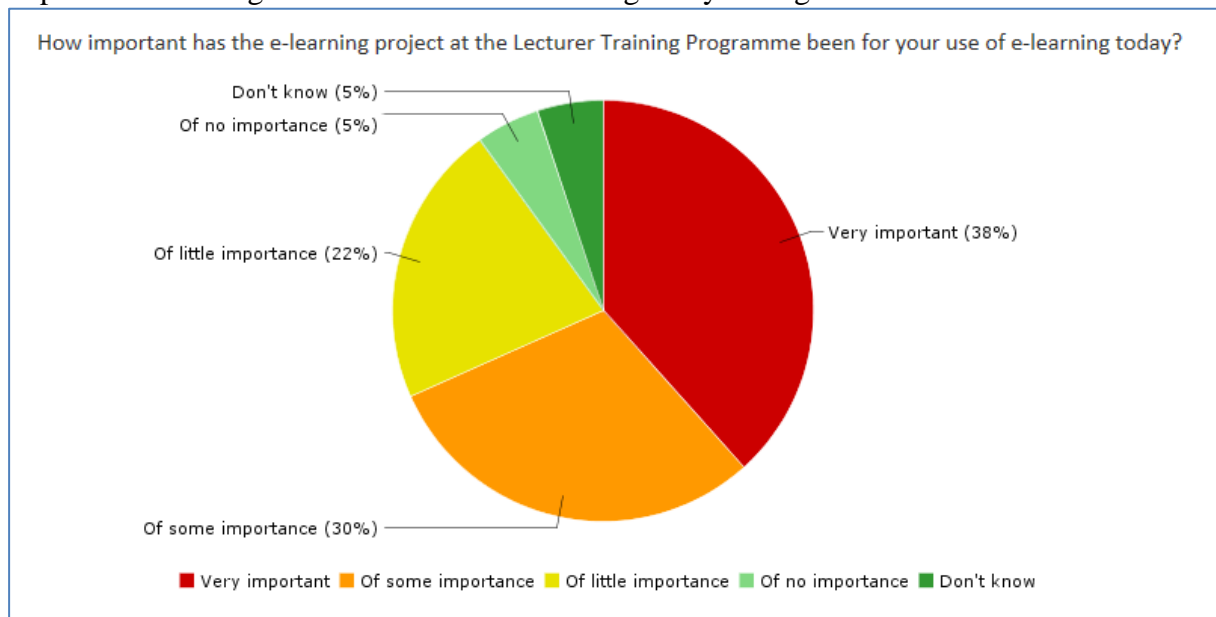


Figure 14. The importance of the e-learning project.

Discussion and practical implications

Participants' overall satisfaction (figure 2) with the e-learning project is high which indicates that they perceive it as a meaningful way to learn and to develop their teaching competences. Our conclusion is that the present model works well and that only minor adjustments might be relevant. Text answers given in the questionnaire survey, interviews with participants and e-learning project reports have been carefully studied to find out exactly what components in the present model need adjusting in order to provide a better learning experience for the remaining participants.

Two informants in the questionnaire survey pointed to potential areas of improvement indicating that the e-learning project was seen as a “small side project” or a “minor thing”:

There was a tendency (maybe mainly by the participants) to "forget" the e-learning project in the programme, so it ended up as being kind of a small side project. I think it could benefit by being a more clear, integrated part of the programme.
(LTP participant)

However, other participants have been successful in merging their e-learning project and the pedagogical development project of the LTP. This has had significant influence on the attention given by the participant to the execution of e-learning activities and the writing of the final report. The merger created optimal conditions for feedback on the participants' teaching because the colleague supervision group and the external supervisor were involved in providing feedback. Supporting participants in merging the various components of the LTP therefore appears to be an effective way of improving the existing model.

Participant control and problem orientation

More than half of the informants feel highly motivated and engaged to work actively with the e-learning project when having to design and define the e-learning activity themselves (figure 3 above). Participant control and problem orientation thus seem to be important aspects when designing learning activities for lecturers even though the concepts were coined decades ago. An informant in the questionnaire survey wrote:

It is good to have a light pressure from SDU in order to get started. But it is good to let it be up to the individual to find activities where the integration of e-learning is meaningful.

(LTP participant)

A combination of a mandatory element and flexibility is appreciated by participants. Several participants stress that they already had plans to integrate e-learning into their teaching. The openness and flexibility of the e-learning project thus allowed them to complete already planned work tasks at the same time as being able to make use of the support offered in relation with the e-learning project.

Participants who were interviewed said that having to actually carry out their e-learning activities in practice with a class meant that they acquired the necessary knowledge and skills to a level where they also felt comfortable using it with future classes.

The fact that participants must carry out their e-learning activity with one of their classes is thus a very important part of the e-learning project and should be preserved to secure a good learning experience for participants.

However, around a third of informants are only motivated and engaged to some degree. 8% to a low degree or not at all. It can be a difficult exercise for participants to find out how to integrate e-learning into their teaching and to actually design and define an e-learning project themselves. They might have little teaching, experience other constraints or feel insecure due to a perceived lack of knowledge. One informant writes:

I think it is an essential part of the exercise, even though I know it was difficult for some participants to get it integrated in their classes and thereby work actively with the project.

(LTP participant)

How can we support these participants better? Comments given by informants in the questionnaire survey indicate that some did not manage to create links between the e-learning project and actual challenges that they were facing in their teaching. These participants focused on getting the assignment done, simply carrying out an isolated e-learning activity which did not seem very meaningful. A possible solution could be to put more emphasis on the start-up phase of the e-learning project supporting participants in their efforts to formulate their e-learning project and to create strong links to challenges they face in their teaching and consequently to identify the participants' needs and wishes with regards to their development as lecturers.

Available support

Before the questionnaire survey, it was discussed whether the CTL at SDU should continue to both offer courses and individual support. Courses were not always well attended and

individual support was in high demand. However, the results of the survey (figure 6) show that more than a third likes both types of support which means that both should continue to be available to participants. The performed interviews do highlight the importance of individual support by an e-learning consultant. In addition, several participants point to a very beneficial two-step process in which a CUU course gives initial inspiration and explains the possibilities and a subsequent meeting with an e-learning consultant helps the participant design a targeted e-learning activity matching individual needs and context.

Feedback and reflection

Questionnaire results and interviews show that the opportunities for reflective learning and feedback embedded in the e-learning project are experienced as meaningful activities for most of the participants. The survey highlights important aspects of reflection and feedback that need to be preserved to secure a good learning experience for participants.

Social reflection

Interviews and text answers indicate that it is not feedback at fixed intervals that are seen as the most useful. Rather, participants prefer open and flexible access to advice and discussions with an e-learning consultant as they design and carry out their e-learning activities. An informant writes the following about the importance she attached to the feedback he/she received on the concluding e-learning report:

[The feedback] was of great importance. I am no longer afraid to experiment with e-learning.

(LTP participant)

Another informant highlights the importance of the ongoing support and feedback:

[Feedback on the concluding report] has been of minor significance since I have had ongoing contact with an e-learning consultant throughout the e-learning project.

(LTP participant)

Text answers given in the survey questionnaire and interviews show that participants who involve their colleague supervision group and their supervisors have a particularly meaningful and valuable learning experience. An informant writes:

We had a really good [peer supervision] group in which we all tried to attend each other's lessons, and then afterwards we would sit an hour where they would give feedback on my use of Shakespeare (a student response system). Because I had told them that I would like supervision on that. This was really good because I got a lot of feedback and we met afterwards, and it meant that I could redesign my questions and the structure, so that it became much better, so I used them a lot. We used each other a lot. I'm pretty green in teaching and I haven't taught before, so I needed all the feedback I could get. Some of them were really experienced lecturers, so this was quite important.

(LTP participant)

Individual reflection

The report format seems to be a fairly satisfactory way for participants to end the e-learning project. Interviews show that it is especially useful for participants to have to reflect on their own and their students' experiences as part of the final reporting. Participants are often concerned about how students will engage with the e-learning activity that they have designed. Obtaining information on students' actual experiences is therefore quite revealing for participants and helps them see what works and what could be improved. Against this background, reflection at the individual level seems to play an important role when the lecturers prepare the final report, as the lecturer needs to describe the instructional design which had been used and the students' evaluation of the method.

Organisational reflection

How well does the LTP operate on the organisational level of reflection? I.e. have we successfully managed to integrate spaces and opportunities for reflection that enhance learning? As illustrated above, the survey results indicate that the present reflective activities on the social and the individual level in the LTP do work well and have a positive effect on the learning outcome of participants.

In order to further improve the learning experience, participants could be asked to present their projects to colleagues and management at their department to inspire and create a space for social reflection. Furthermore, peer assessment could be added to both the mid-term status and/or the final e-learning report. Finally a new opportunity for individual reflection has arisen with the recent introduction of the LTP portfolio that enables participants to collect and reflect on their learning experiences.

Summing up, it is clear that some participants find it meaningful to engage with the feedback provided and to exploit the opportunities for individual and social reflection. This in turn seems to positively influence their learning. From the organisational perspective on reflection, the pedagogical implications would be to optimize the conditions for and the perceived meaningfulness of the participants with respects to engaging in especially social reflection and feedback activities.

Work-based learning and transfer

As illustrated above, participants experienced the close integration between work and learning as a meaningful way of gaining knowledge on e-learning pedagogy and tools. Furthermore, the task of actually having to carry out e-learning activities with a class seems to prepare participants for using e-learning in their future teaching, thus overcoming the transfer problem. A high percentage uses e-learning today (figure 13 above). One participant stated that

It made a lot of sense to me. I'm using it (blogs and wikis) again this year and this is simply because I used it so intensely and used it in the actual teaching that I had.

(LTP participant)

This is very satisfactory and supports the conclusion that the present e-learning project is an effective lecturer training activity. Decisions will now be made concerning what improvements to implement for further optimisation.

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